

Community Development Plan Dudley, Massachusetts



Prepared for the Town of Dudley by:

The Central Massachusetts Regional Planning Commission

and the

Massachusetts Watershed Coalition

May 2004

This project was funded by a grant to the Town of Dudley from the Executive Order 418 Interagency Working Group.

**Dudley, Massachusetts
Community Development Plan**

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Executive Summary

The Town of Dudley completed a comprehensive Master Plan update in 2000, with the assistance of the Central Massachusetts Regional Planning Commission (CMRPC).

The Master Planning Process in Dudley:

The Master Plan was prepared by the Dudley Master Plan Committee, which was appointed by the Dudley Planning Board. The Committee was composed of Dudley residents, some with experience on local boards, and some with no previous municipal experience. The Committee met on a monthly basis (sometimes twice a month) and all meetings were open to the public. Representatives from other municipal boards and committees including the Board of Selectmen, Planning Board, Water and Sewer Commissioners also periodically attended the Committee's meetings. Interested citizens also stopped in periodically to provide their input.

During the initial stages of Master Plan preparation, interviews were conducted with all key municipal committees, boards, commissions and personnel. Everyone contacted was very helpful in terms of assisting with the update of inventory information, identifying upcoming needs, and providing candid assessments of the challenges they face. The Master Plan Committee reviewed this input in detail.

To further increase the public's involvement in the Master Plan update process, the Committee prepared a citizen survey to solicit the opinions and desires of the citizens. The survey was publicized on the local cable access channel, as well as through a variety of press releases. The survey was sent to every household in Dudley in July of 1999. The survey results were tabulated over the summer. The survey results were presented to the Board of Selectmen at their meeting on October 4, 1999. Another presentation was made to the Dudley Grange on October 12, 1999. The survey results were also reviewed at the first Master Plan public forum held on January October 27, 1999.

The second Master Plan public forum was held on January 26, 2000. The Dudley Planning Board reviewed a full draft of the Master Plan during its adoption hearing in April of 2000. A final Master Plan presentation was given to voters at the May 2000 Town Meeting. The Master Plan was unanimously accepted by the voters at the May 2000 Town Meeting.

The citizen survey results and the public forum input were critical in their guidance of Dudley's master planning effort in terms of the Plan's vision statement and its goals:

Dudley Master Plan Vision Statement

"In the Year 2010, we want Dudley to be a cohesive community that provides quality education and municipal services, with a stable rural character and unique identity, where people can feel comfortable living and working."

Transportation – Goal: Maintain an efficient and safe system of transportation for vehicles, bicycles, and pedestrians that is consistent with the Town’s rural character and natural environment.

Town Government - Goal: Provide high quality municipal and educational services, facilities and infrastructure that are consistent with the fiscal health and environmental quality of the Town and that meet the current and future needs of Dudley’s residents, businesses, industries and institutions.

Open Space and Recreation - Goal: To promote Dudley’s rural character by retaining its open space lands and expanding the Town’s passive and active recreation facilities for the enjoyment of the community.

Natural Features – Goals:

1. Preserve, enhance, and publicize the Town’s natural resources, agricultural resources, historic buildings and sites, unique cultural resources and significant views.
2. Maintain and enhance a high quality environment, which can accommodate an attractively built community with minimal impact on air and water quality, and the Town’s natural habitats.

Housing - Goals:

1. Maintain the Town’s existing diversity of housing options in order to maintain housing affordability and accommodate households with varying housing needs and family structures.
2. Ensure that housing growth rates and locations are consistent with Town government’s ability to provide public facilities and services, protect the environment, and preserve and enhance community character.

Economic Development - Goals:

1. Promote economic development that is in keeping with the Town’s character and natural environment, and that results in long-term tax revenue and good paying local jobs.
2. Promote a business friendly environment where new businesses can find a streamlined regulatory process, modern high-speed communication availability, a qualified workforce, and a competitive tax rate.

Land Use - Goal: Promote the most efficient use of Dudley’s land resources. This includes the most effective placement of commercial/industrial ventures while complimenting the established pattern of residential development and Dudley’s agricultural heritage.

Dudley's Community Development Plan: In its scope of work approval letter, dated February 12, 2003, the State's Executive Order-418 Interagency Working Group (IAWG) used Dudley's 2000 Master Plan as its basis for granting equivalency for the following elements of Dudley's Community Development Plan:

Visioning & Goal Setting
Economic Development
Transportation

This left the Town to complete the Housing and Open Space & Resource Protection elements of its Community Development Plan (herein contained). Dudley was also able to use some of its leftover EO-418 funds to tackle a project of its own choosing: preparation of Site Plan Review Regulations for the Planning Board (herein contained).

Funding Credit

This plan was prepared with funding provided by the Commonwealth of Massachusetts pursuant to Executive Order 418. The following state agencies are members of the Inter-Agency Working Group and contributed to the implementation of this Community Development Plan.

Executive Office of Environmental Affairs
Executive Office of Transportation and Construction
Department of Housing and Community Development
Department of Economic Development

Town of Dudley Open Space and Recreation Plan

November 2003

**Prepared for the
Dudley Community Development Planning Committee
by the
Massachusetts Watershed Coalition**

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Section 1: Plan Summary

The Town of Dudley has a rich agricultural and industrial heritage. Over 1,660 acres of farmland has been protected by Agricultural Preservation Restrictions, more than any other Massachusetts town, except Amherst. Rolling scenic hills are interspersed with forests, fields and the historic mill villages that once flourished with the power supplied by the French and Quinebaug Rivers.

Many rural qualities are changing as Dudley steadily grows with the influx of new residents seeking affordable housing and an appealing environment. As the population increases, home construction is transforming open spaces into suburban neighborhoods. There is increasing need to preserve the scenic landscapes and enhance the recreation resources that Dudley residents enjoy.

This Plan updates the Town's 1988 Open Space and Recreation Plan. Section 3 supplies new information about the regional context, population characteristics and development patterns in Dudley. The following two sections describe the Town's natural, scenic and historic resources, and provide an inventory of existing conservation and recreation areas. Community needs, goals and objectives are then discussed in the next sections, which incorporate the findings from a community survey that asked residents' views on open space and recreation issues. This community input was used by the planning committee to identify five broad goals for this Open Space and Recreation Plan:

- Sustain the health and quality of Dudley's water resources;
- Enhance and increase conservation lands in Town;
- Improve recreation opportunities for residents and visitors;
- Retain the Town's rural character;
- Promote community participation in conservation and recreation projects.

Specific objectives are also identified to help the Town achieve these goals. The concluding section of the Plan recommends a variety of actions to protect community resources, preserve rural character, and improve recreation opportunities.

Section 2: Introduction

A. Statement of Purpose

This Plan presents information that will help preserve the quality of life, protect the environment, and enhance recreation opportunities for Dudley residents. The primary purposes of the Plan are to:

- Evaluate the conditions of natural resources and other factors that are relevant to open space and resource protection;
- Identify existing protected lands and opportunities to meet recreation needs;
- Recommend actions that will preserve open spaces and improve recreation resources;
- Provide information that enables the Town to qualify for state and federal assistance for land purchases and improvements of recreation facilities.

B. Planning Process

In addition to updating the 1988 Open Space and Recreation Plan, this Plan supplements the Master Plan 2000 that was prepared for the Town by the Central Massachusetts Regional Planning Commission. This Plan also serves as a core element of the Dudley Community Development Plan, which will guide future decisions concerning resource protection, housing and land use in Dudley.

The planning process was initiated under the state's Executive Order 418, which supplies guidance and funding for the preparation of Community Development Plans. The first step was formation of the Community Development Planning Committee (CDPC) that is comprised of Town officials and concerned citizens, including:

Leo Biron, Dudley Parks and Recreation Committee
Laurie Connors, Dudley Town Planner
Marguerite Flynn, Dudley Housing Authority
Addie Healy, Dudley Resident
Guy Horne, Dudley Planning Board
Chet Kulisa, Dudley Resident
Sandy Peterson, Dudley Resident
Joe Sendrowski, Dudley Board of Selectmen
Martha Tierney, Dudley Resident

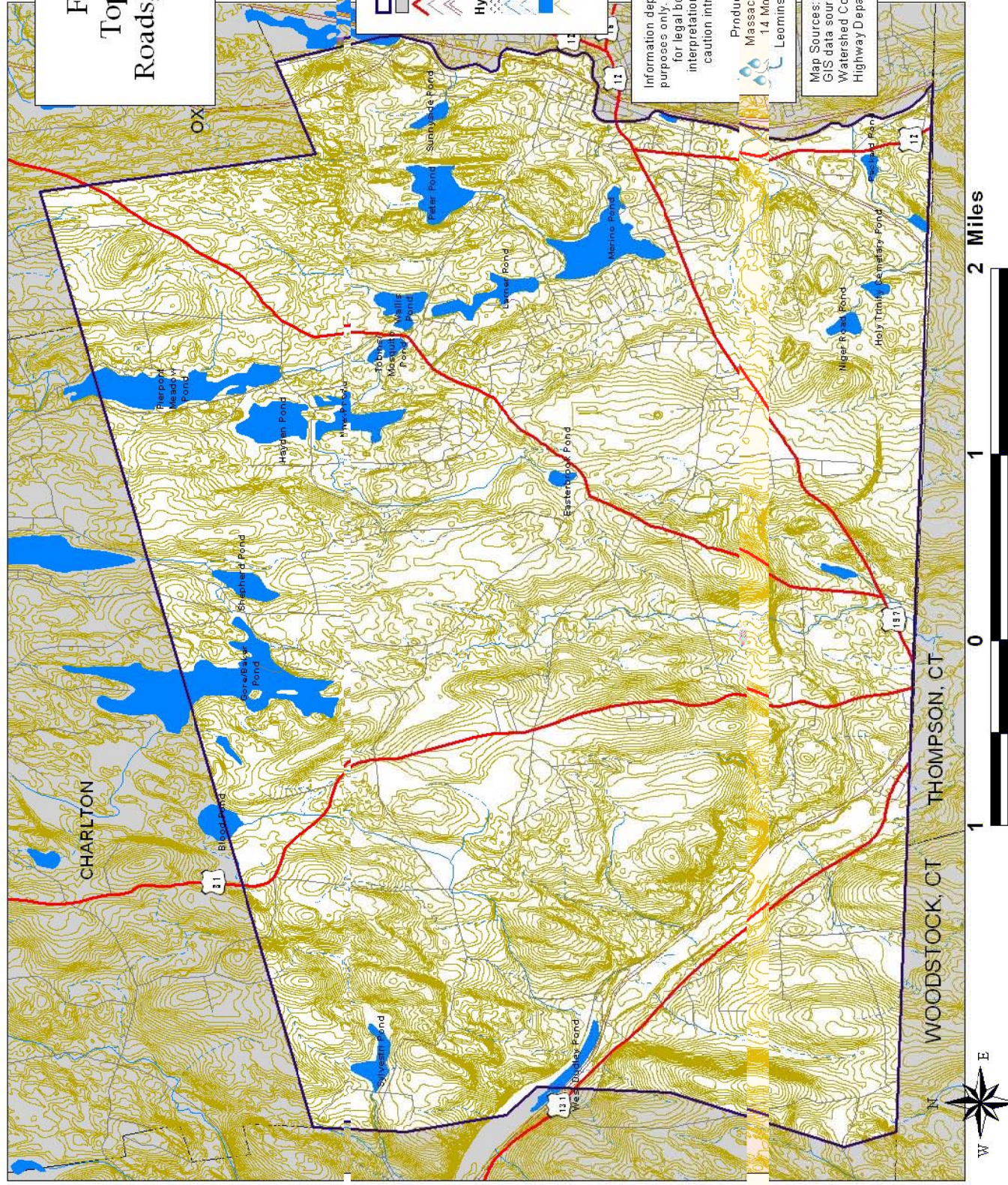
The Massachusetts Watershed Coalition was hired to research information, prepare the Open Space and Recreation Plan, and assist the Committee with consideration of the goals, needs and actions recommended by the Plan.

The Town Planner designed a community survey that was mailed to all households in May 2003. A total of 511 Dudley residents returned their surveys, and these responses were compiled in June. Survey findings were discussed by the CDPC at its July meeting.

In addition to survey input, this Plan utilized information supplied by Town departments, Dudley residents, public agencies including the Central Massachusetts Regional Planning Commission, and a variety of community reports.

All Committee meetings have been open to the public, and the Plan will be distributed to Town boards for review. The comments of these boards will be included in the Plan that is submitted to the Massachusetts Division of Conservation Services. A summary of survey responses and the minutes of CDPC meetings are provided in Appendix A.

Figure 1:
Topography,
Roads, & Wetlands
Map



Section 3: Community Setting

A. REGIONAL CONTEXT

Dudley is located in southwestern Worcester County along the Connecticut state line, 59 miles southwest of Boston and 22 miles south of Worcester. Comprised of 14,003 acres, the Town is roughly rectangular in shape, with average dimensions of 3.8 miles north to south and 5.6 miles east to west. The Town is bordered on the north by the towns of Charlton and Oxford, on the east by the town of Webster, on the west by the town of Southbridge, and on the south by the towns of Woodstock and Thompson, Connecticut.

The historic Town center is located on Center Road, and most of Dudley's commercial activity occurs along Routes 12 and 197. State Routes 131 and 31 run north-south through the west side of Town, with Route 197 being the east-west connection between Routes 131 and 31 to Route 12. Outlying villages are known as Sunnyside, Chaseville, West Dudley, Quinebaug Village and Jericho. Route 31 is a main travel route that connects Dudley to Charlton and other points north.

As with other New England towns located on major rivers, Dudley experienced heavy industrial development in the 1800s. This development was centered on the rivers and streams, which were used to supply power to the industries. As the industrial revolution slowed, the town was left with a smaller number of mills. Many ponds are located in Town, primarily as a result of damming the small streams. Gore, Blood, and Pierpont Meadow Ponds are all shared with Charlton to the north.

Dudley's terrain features many north-south ridges along with lower lying areas displaying little relief. The hills are interspersed with numerous brooks, ponds, fields, and forests. Dudley is within the Southern New England Coastal Plains and Hills Ecoregion. The Town has many local farms that are permanently protected under the Agricultural Preservation Restriction, thereby preserving a large component of open space in Dudley. Over time, the Town's rural qualities have been maintained. There are active farms in Dudley and the neighboring towns.

Important wildlife habitat is found in the western side of Town. The Massachusetts Natural Heritage and Endangered Species Program has produced a BioMap that shows Core Habitat of rare species and Supporting Natural Landscapes Habitat in areas that span Dudley, Southbridge, and Charlton.

The French River and the Quinebaug River are important resources that are shared with adjacent communities. Slightly more than half of Dudley lies within the Quinebaug River watershed (11.4 square miles), with the remainder in the French River watershed (10.4 square miles). The French River forms the east boundary of Town, between Webster and Dudley downtown areas, then flows south past the state line to its confluence with the Quinebaug River in Connecticut. The Quinebaug River bisects the west side of Town, flowing southeast to Connecticut, where it joins the French River. While there was abundant industrial development of the French River, the Quinebaug has seen significantly less development. Several smaller waterways are also found in town, which eventually flow into the French and Quinebaug Rivers.

B. HISTORY

English settlers made their way to Dudley in the early 1670s. Settlement occurred near Dudley Hill, which was occupied by a branch of the Nipmuck Indians, the Pegan Tribe. The area occupied by the Indians traversed parts of Dudley, Oxford, Webster and Thompson, Connecticut. In 1731, Dudley settlers petitioned for incorporation as a township, which occurred on June 1, 1732. The Town was named after one of the early governors of Colonial Massachusetts, Thomas Dudley. Dudley was the first town incorporated after the establishment of Worcester County.

Dudley's first town meeting was held on June 20, 1732 at the William Carter House, located north of Dudley Hill. Dudley was primarily a farming community, due to its abundance of productive soils and gentle terrain. In the early 1800s, Dudley's economy began to shift away from its agrarian ways towards the textile industry. The banks of the French River were utilized for textile manufacturing in multiple areas of town. Merino Woolen Mill (later known as the Stevens Mill), Amasa Nichols Cotton Mill (the Chase Mill), and the Dudley Woolen Mill were the main textile mills in East Dudley.

Originally part of Dudley, the town of Webster was incorporated in 1832. As a result, Dudley's population decreased by more than one third and the Town also lost many businesses, including five cotton mills, three woolen mills, and related enterprises. With the building of the Norwich and Worcester Railroads in the 1840s, Dudley was able to capture new markets.

In 1846, Henry Hale Stevens bought the old Merino Mill and began a large-scale expansion. Still present are the monumental four story stone buildings that were constructed with local granite in the 1800s. Stevens Linen Works prospered during and after the Civil War, leading to the construction of the mill workers housing district in Merino Village. Stevens Linens moved from its original site to Schofield Road (Route 12). In addition to the mills in East Dudley, smaller manufacturing centers grew in the northeastern and western parts of Town. The Quinebaug River also had manufacturing activity with the Eben Stevens Jute and Satinet Mill in 1872 and the Gleason and Weld Paper Mill in 1864. Dudley's mills flourished until the Great Depression, with several mills relocating to the southern U.S. and several mills closing completely.

Dudley's landscape has seen modest changes in the last half century. The Stevens Linen Mill and the Chase Mill survived the Great Depression and are operating today. Nichols College continues as a four-year college at its original location on Dudley Hill. The construction of the nearby Massachusetts Turnpike (Route 90) and Interstate 395 has not significantly increased Dudley's economic base. The Gentex Corporation, an optics manufacturer employing approximately 250 people, is the most significant new industry to come to Town in the last 50 years. Gentex is proposing to expand by 25%, thereby employing more people. Other small industries include Webco, Hanke Sasswolfe, and Shields Manufacturing. The town is looking at establishing a mixed-use area, using the former mills, which will combine residential, commercial, and non-profit uses. Additionally, Dudley has two former mill sites, the Ethan Allen building and a Stevens Linens site, which are both available for industrial use.

Dudley has maintained a moderate amount of agriculture over the years, with numerous small farms located in the northern and western sections of town. During the 1950s and 1960s, many small vacation houses were built around Dudley's ponds, particularly in the northeast part of Town. Many of these homes have been converted to year-round residences.

Residential development, along with Dudley's population, has steadily increased over the last 50 years. In 1970, Dudley's population was 8,087. The population has increased by approximately 60 residents per year, with a current population of 10,036. The last few years have had a much faster population growth rate, which is reflected in the large increase in building permits issued in the late 1990s. Dudley's rural character, quality schools and low tax rate have made the Town a desirable place to live.

Dudley typifies a small New England town where municipal officials work part-time and volunteerism is strong. Manufacturing and farming are still viable economic options, although the service industry has shown the largest increase in recent years. Dudley stands at the threshold of the twenty-first century striving to maintain the best elements of its past while planning for the future (history excerpts from *Dudley Master Plan 2000*).

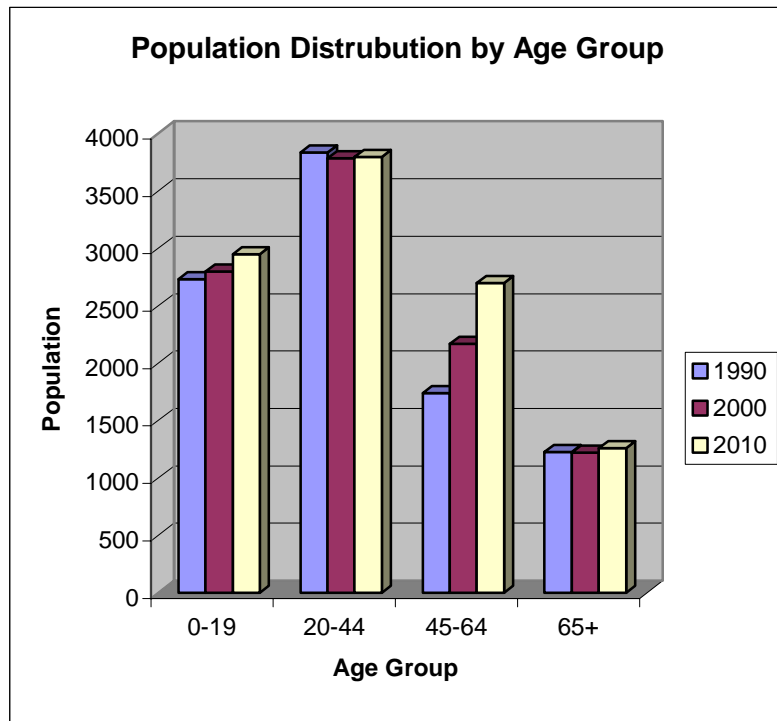
C. POPULATION CHARACTERISTICS

During the past 30 years, Dudley's population has grown at varying rates. The characteristics of this growing population are important in planning for the open space and recreation needs of the Town residents. Statistics in this section were compiled from several sources, including the U.S. Federal Census, the Massachusetts Institute for Social and Economic Research, the Central Massachusetts Regional Planning Commission, and the Massachusetts Division of Employment and Training.

Population Statistics – From 1950 to 1970, Dudley's population increased 53%, from 5,261 to 8,087. From 1970 to 1980, Dudley's population increased from 8,087 to 8,717, at a slower rate of 7.8%. This growth has remained relatively steady over the next decade (Federal Census Data), with the population increasing to 9,540 by 1990. The 2000 Federal Census reported a 5.2% increase to 10,036 residents. The Central Massachusetts Regional Planning Commission's (CMRPC) *2020 Growth Strategy for Central Massachusetts* forecasts that Dudley will grow an additional 7% to 10,741 residents by 2010. This forecast is very similar to the Massachusetts Institute for Social and Economic Research population forecast of 10,710 people.

These statistics show that the population density of Dudley's 21.9 square miles of land has increased from 240 per square mile in 1950 to roughly 458 people per square mile in 2000. CMRPC's *2020 Growth Strategy for Central Massachusetts* forecasts for 2010 show that surrounding communities will all experience growth. The 2010 population projections suggest that Webster will have the slowest growth rate of nearby communities, while Charlton will have the fastest rate of growth; Dudley's growth rate lies in the middle of the two. Regional growth is primarily due to persons migrating from the eastern part of the state in search of more affordable housing.

Age Statistics - Every two years, the Massachusetts Institute for Social and Economic Research (MISER) produces population forecasts for cities and towns across the state. MISER uses data from many sources to provide “high-level”, “mid-level”, and “low-level” population estimates. The MISER “mid-level” projections for age groups in Chart 1 show a total population slightly less than the CMRCP forecasts noted above. However, the age breakdown is likely to remain proportional for larger population estimates by CMRCP and other sources.



Interpretation of the MISER forecasts for Dudley’s population in 2000 and 2010 suggest:

- ♦ children under age 19 are likely to increase in number;
- ♦ Town residents between 20 and 44 years of age will remain the same;
- ♦ residents between 45 and 64 years of age will likely increase by 25%; and
- ♦ residents older than 65 years of age will increase slightly

In April 2003, an Open Space and Recreation Survey was mailed to Town residents. Survey question # 7 asked respondents to identify their top five needs for recreation facilities. The survey results indicate that the greatest needs include:

1. conservation areas
2. multi-purpose trails
3. a senior center
4. improved sidewalks
5. a youth center

Write-in comments by survey respondents also identified many other recreation needs. Based on MISER forecasts for a major increase in the 45 to 64 year old age group, the Town may want to place special attention on creating recreational facilities to serve this age group (conservation areas and multi-purpose trails).

Income Statistics – Federal Census data (Census 2000) show that the median income for all Dudley households in 1990 was \$34,139, with an increase in 2000 to \$48,602. The 2000 Census data also reports a \$59,309 median income for 2,668 family households. This is slightly above the State median household income of \$50,502.

The distribution of income for all 3746 households follows:

- ♦ 291 households (7.8%) were less than \$10,000
- ♦ 577 households (15.4%) were between \$10,000 and 24,999
- ♦ 1071 households (28.6%) were between \$25,000 and 49,999
- ♦ 858 households (22.9%) were between \$50,000 and 74,999
- ♦ 428 households (11.4%) were between \$75,000 and 99,999
- ♦ 521 households (13.9%) were greater than \$100,000

Employment Statistics - Massachusetts Division of Employment and Training (DET) data for 1990 shows Dudley had 146 establishments with 2,305 employees. DET data for 2002 reports there were 145 establishments employing 2,229 workers. This data for other years during the 1990s varied slightly, but there was an overall pattern of positive employment in town.

DET data for 1990 show the Town's 5,201-person labor force had a 6.2% unemployment rate. Dudley's 2000 labor force decreased slightly to 4,909, with unemployment falling to 2.9%. Both the 1990 and 2000 data are consistent with statewide rates.

D. GROWTH AND DEVELOPMENT PATTERNS

Patterns & Trends – Over the years Dudley has changed from a primarily agrarian community to an industrial community to its current state of primarily residential land, some remaining agricultural land, and some industrial land. The eastern part of Town was readily utilized by industry due to available water power and ponds. Mills were constructed on the Quinebaug River for the same reasons. Today, Dudley maintains much of its rural quality as a result of extensive protected agricultural land found in the central area of Town. The west and northeast portions of town have large areas of land that add to the rural quality as well. State highways passing through town allow easy access to Worcester to the north and Boston to the east.

Conservation needs are becoming greater as residential development reduces the Town's open spaces. Dudley still has considerable undeveloped land, so it is increasingly important to preserve its rural landscape and manage growth to minimize environmental, fiscal, scenic, and transportation impacts.

Infrastructure - Dudley's transportation system consists of four state highways and numerous local roads. From West to East, the main thoroughfares in Town are: Southbridge Road (State Route 131), Dresser Hill Road (State Route 31), Dudley Center Road, Dudley Oxford Road, West Main Street (State Route 197), and Schofield Avenue (State Route 12). The extensive road systems in the eastern section of Town resulted from higher density residential development. The industrial lands in Dudley are along state highways except Route 31, which has industrial land on its southern end in Town. Oxford Road is also heavily used as a fast connection to Interstate 395 to the east.

Dudley has three well fields. One is located at the southern end of Merino Pond, near West Main Street and Mason Road, and two well fields are located off of Schofield Avenue, south of West

Main Street. Two supply tanks are present, one on Dresser Hill Road, the other on Bates Road. The water system supplies approximately 650,000 gallons per day to 2,100 customers. The distribution system is nearly 35 miles in total length. The water system can provide one million gallons per day, if the wells pump continuously over a 24-hour period. During the summer months, demand can reach one million gallons per day, the capacity of the current water supply system. There is a water moratorium in effect, with a waiting list for water line hookups. The town is actively seeking additional water sources to meet future demand (*Dudley Master Plan, 2000*). Dudley should explore the possibility of a connection with neighboring water systems as a backup for emergency purposes, particularly since Dudley's water supply is vulnerable to the land uses over the aquifer.

Dudley's sewer system is comprised of multiple sewer lines, with more than 1,611 connections. Most of the connections are residential, along with industrial, municipal, institutional, and commercial facilities. Increasing residential development has necessitated a multi-stage expansion of the sewer system. Town sewage is treated at the joint Dudley/Webster wastewater plant, located in the town of Webster. The treatment plant is currently operating at 50-60 percent of its peak capacity of six million gallons per day. Approximately three million gallons of treated wastewater are discharged daily into the French River. This plant only treats sewage and does not handle storm water. An additional smaller facility exists in Dudley, off Carol Way, which serves to equalize the sewage flow to the Webster treatment plant. No active treatment or discharge occurs at the Dudley plant, but it is available as a backup treatment plant to the Webster plant if the need exists (*Dudley Master Plan 2000*). Adding a hookup with Southbridge's sewer line and water line near the Town border would allow for new development near that portion of Town. In addition to residences connected to Town sewer, many homes have private septic systems.

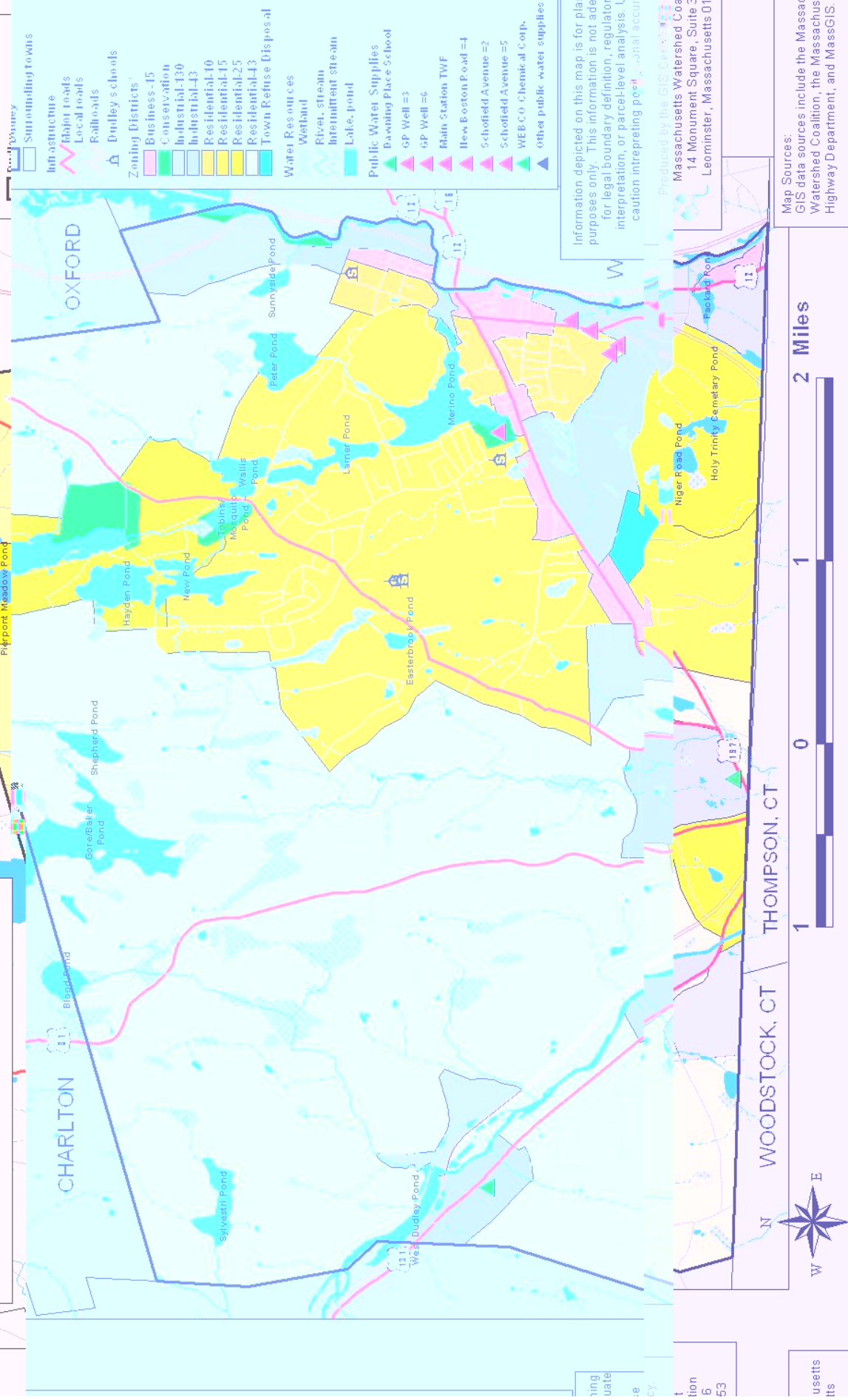
Long-Term Development Patterns – As shown by Figure 2, Dudley's current zoning districts are Residential-10 (Res-10), Residential-15 (Res-15), Residential-25 (Res-25), Residential-43 (Res-43), Residential-87 (Res-87), Industrial-43 (Ind-43), Industrial-130 (Ind-130), Light Industrial-43 (LI-43), Light Industrial-87 (LI-87), Business-15 (Bus-15), Conservation (Con), and Town Refuse Disposal (TRD). The Town's zoning scheme is the determining factor in the location and density of development in Dudley. The Res-10 district in east Dudley allows 10,000 square foot lots and the highest residential density. Nearly the entire Res-10 district is served by municipal water and sewer.

Res-15 and Res-25 are medium density residential districts with 15,000 and 25,000 square foot minimum lot size, respectively. These areas are located in the eastern half of Town and along Route 131. The west and northeast sections of Town are zoned as R-43 districts that require a one-acre minimum lot size, and Res-87 districts that require a two-acre lot size.

There are four business districts, which are located along West Main Street, Oxford Avenue and Schofield Avenue in the southeast part of Town. Four types of industrial zoning districts are found in Dudley, including the older I-43, a one-acre minimum lot size and I-130, a three-acre minimum lot size. The two newly created zoning districts are LI-43, light industrial with a one-acre minimum lot size and LI-87, with a two-acre minimum lot size. These industrial lands are situated along Southbridge Road, West Main Street, Schofield Avenue and Oxford Avenue.

**Figure 2:
Zoning Map**

*Zoning districts displayed are current as of 2000.
Changes to zoning districts are ongoing as of
Fall 2003.



Dudley and the surrounding towns will continue to have rapid residential growth over the next five years. Developed land is expected to increase from 2,466 acres to 2,747 by 2010, with the most development occurring along the state highways in Town (CMRPC *2020 Growth Strategy for Central Massachusetts*). However, Dudley has a large amount of farmland protected under the State's Agricultural Preservation Restriction Program. These agricultural areas are found primarily along Route 31, located in the central part of Town.

The buildout analysis prepared by the Central Massachusetts Regional Planning Commission in 1999 indicates that Dudley's population could increase by an additional 16,017 residents with the existing zoning scheme. The R-43 zoning district has the largest amount of land available for future development, but the R-15 district can accommodate a substantial amount of building, due to the small minimum lot size. Surrounding towns are likely to have more rapid growth and Dudley is expected to remain a bedroom community that relies on the employment opportunities and retail services in the nearby towns of Webster and Southbridge (CMRPC *2020 Growth Strategy for Central Massachusetts*).

Results of the 2003 Dudley Open Space and Recreation Survey show that 65.8% of respondents would vote for town sponsored land acquisition. The majority of respondents (68%) consider degradation of drinking water supplies as the most critical open space problem and feels it is most important to protect open spaces for water supply needs.

The build out analysis prepared by the Central Massachusetts Regional Planning Commission shows that long-term growth could result in over 8,000 additional developed acres. Most of the projected growth will be residential (7259 acres) due to current zoning regulations, with a lesser amount of industrial growth (796 acres) and business growth (52 acres). As Dudley continues to grow, it must do so in a proactive and informed manner, to maintain the rural atmosphere that residents enjoy.

Section 4: Environmental Inventory and Analysis

A. GEOLOGY, SOILS & TOPOGRAPHY

The geology of Dudley is a primary influence on the natural and man-made landscape we see today. Geology affects topography by creating the elevations that form rolling hills and valleys. It affects soils by providing the underlying parent materials with different fertility and drainage characteristics. The soils determine the vegetation that grows, as well as the limitations for land uses that can occur. Geology, soils and topography all determine how both surface waters and ground waters function, which is highly important to both the natural and built environments.

Bedrock Geology - The bedrock underlying Central Massachusetts was formed 350-400 million years ago when sediments deposited in ancient seas were hardened by geologic processes. Later tectonic events folded and heated this sedimentary rock changing it into metamorphic or igneous rock formations. Generally, there is a north-south alignment of these bedrock formations. Some of the bedrock is soft and can break down into clays that hold water tightly making it less available to residential wells.

Most of the Town overlies bedrock aquifers and most private wells are bedrock artesian wells. Well yields are generally adequate for residential development. The average residential well is around 100 to 150 feet deep, although well depths can be much deeper if low yields require additional storage capacity. There are also sand and gravel deposits underlying local streams that can produce higher yields of water. However, approximately 85% of Dudley residents are supplied by or have access to Town water (*Dudley Comprehensive Wastewater Management Plan, 2002*).

Bedrock geology has little effect on land development in Dudley, except a few scattered locations where ledge is close to the surface or there are bedrock outcrops. Bedrock faults are inactive and pose no threat to homes and businesses (*French & Quinebaug Watershed Plan, 1999*).

Surficial Geology - The deposits from mile-high glaciers that covered New England during the Pleistocene Epoch are more variable than the bedrock. This glacial period ended about 16,000 years ago, and created the surface geology that shaped the topography, soils and hydrology of Dudley. River and stream patterns are influenced by landforms created by north-south travel of the glacier, large deposits of sand and gravel are common from the outwash of glacial melt-water, and huge boulders carried from mountaintops to the north are strewn across Town.

Most of Dudley is covered by unsorted rocks, stones and “till” soils that formed on materials deposited as the glacier melted. Where the glacier scoured the surface, bedrock outcrops remain. Where the glacier slid over loose materials on top of bedrock, rounded hills called “drumlins” were formed. Depressions carved out by the glacier also created today’s ponds, bogs, wetlands and stream valleys. Wind and water erosion continued to add deposits along flood plains. Sand and gravel deposits located beside Schofield Avenue, Merino Pond, and New Pond are sources of groundwater for existing and potential Town wells (see Figure 3).

Soils – Dudley has twenty types of soils that are grouped according to similar characteristics. The four general soil associations in Town include:

- Paxton-Woodbridge-Ridgebury soils;
- Canton-Montauk-Scituate soils;
- Merrimac-Hinckley-Windsor soils; and
- Freetown-Swansea-Saco soils.

These soils associations can be used to compare the suitability of large areas of Town for planning of general land uses. More detailed maps and site investigations are required for determining the suitability of specific parcels of land for uses such as roads, home building and farming.

The western and northern parts of Dudley consist mostly of the Paxton-Woodbridge-Ridgebury soils, which are well suited for forestry and farming. This association is characterized as very deep, well drained to poorly drained soils in glacial till uplands. Slopes generally range from 3 to 25 percent; and stones may cover up to 15 percent of the surface. Steep slopes, stoniness and seasonal high water tables can pose limitations for cultivation. Steep slopes, wetness, frost action and slow permeability can pose limitations for septic systems and building foundations.

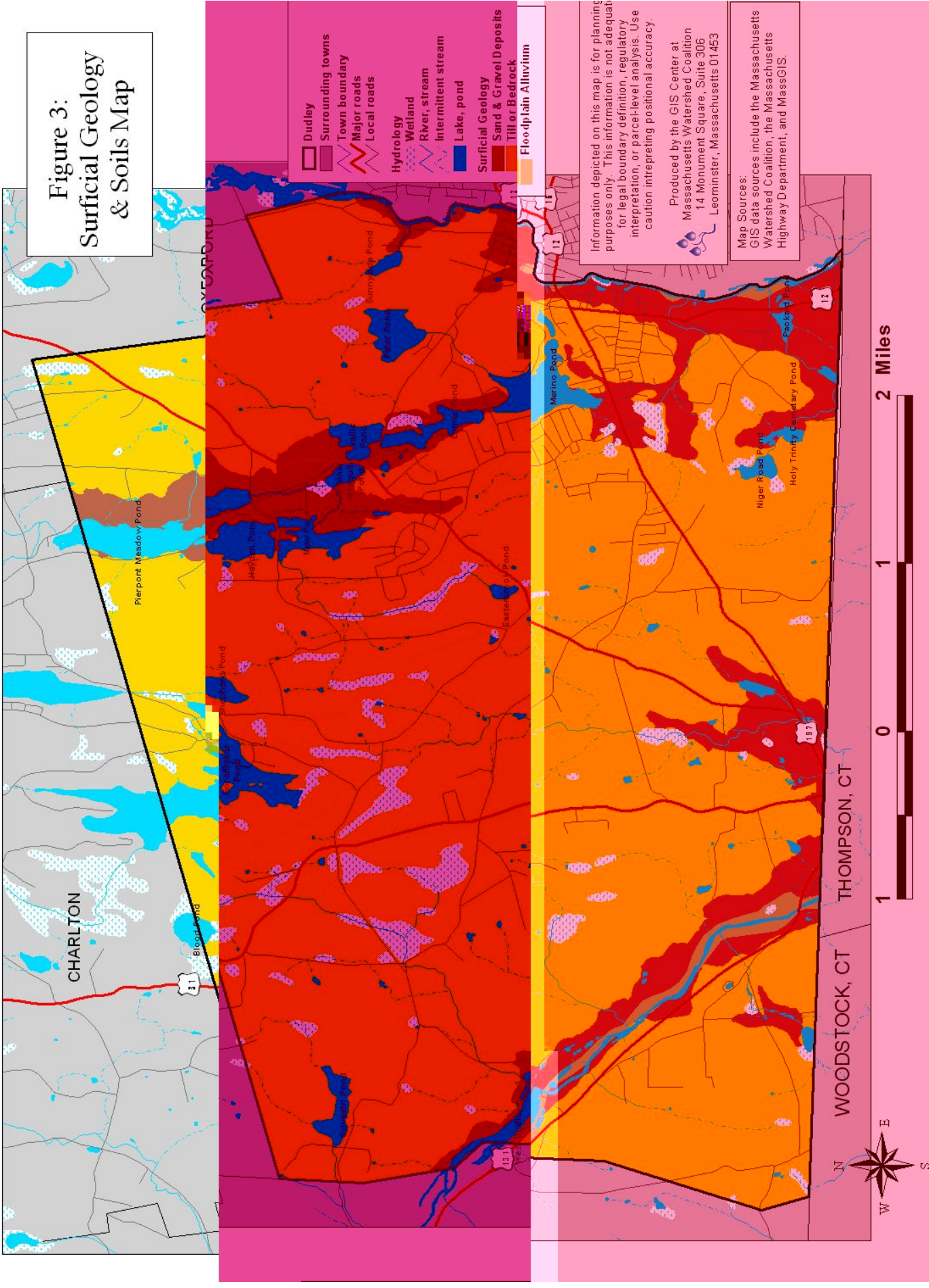
Canton-Montauk-Scituate soils are located on upland hills and rolling glacial flats in the southeast part of Town. Canton and Montauk soils are well-drained areas on the upper slopes of hills and ridges. Scituate soils are moderately well drained areas on the lower slopes. Permeability in these soils ranges from moderately rapid on the surface to moderately slow in the substratum. These soils are well suited for forestry and farming, but some areas with steep slopes and/or surface stones can limit cultivation. While these soils are also suited for most non-farm uses, the Canton soils are limited for septic tank absorption fields due to poor filtering in the substratum, which can cause groundwater pollution. In addition, the sides of excavations in Canton soils are unstable.

Found near waterways on the east side of Dudley, the Merrimac-Hinckley-Windsor association is characterized by deep soils that formed on nearly level to steep deposits of glacial outwash. Merrimac soils are well drained and found on level parts of the outwash plains. Permeability is moderately rapid or rapid, and these soils have 2 feet of loamy material underlain by sand and gravel. Hinckley and Windsor soils are excessively drained and are found on ridges in the outwash plains. Permeability is rapid or very rapid.

Merrimac-Hinckley-Windsor soils are considered suitable for agricultural and forestry uses, although tree seedling mortality can be high because of the lack of available moisture. Slope is a limitation for buildings and roads because the sides of excavations are unstable and the steeper sides commonly collapse. Poor filtering capacity of these soils is a severe limitation in septic tank absorption fields. Effluent from septic tank absorption fields can pollute groundwater.

The Quinebaug River corridor on the west side of Town consists of Freetown-Swansea-Saco soils that formed on organic materials and floodplain deposits. Freetown and Swansea soils are very poorly drained areas in depressions adjacent to rivers, and Saco soils are very poorly drained areas along river channels. Most of these soils are suited for farming, although wetness and flooding are management concerns. Flooding and high water tables in Freetown and Saco

**Figure 3:
Surficial Geology
& Soils Map**



soils limit timber production for all but water-tolerant species of trees. High water tables, flooding and low strength make these soils unsuitable for building site development.

The USDA/Natural Resources Conservation Service has published a Soils Report for Southern Worcester County, which has extensive details of the soil composition of Dudley. Many prime farmlands are part of the general associations described above including the Woodbridge, Paxton, Canton, Montauk, Scituate and Merrimac soils, which are less than 8% slope and lack surface stones. See Appendix B for additional information about soil associations found in Dudley.

Topography - Dudley has many hills and ridges, oriented in a north-south direction, which dip to winding valleys of small streams. There are areas of relatively level land occurring throughout the Town, which include large wetlands and the floodplains of the French and Quinebaug Rivers. An unnamed hill near the northwest border with Charlton is the highest point in Town, 837 feet above sea level. The lowest spot is 350 feet where the Quinebaug River flows out of Dudley into Connecticut.

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waterway. Drainage basins can be subdivided into smaller sub-watersheds of the tributaries to a larger river system. Slightly more than half of Dudley lies within the Quinebaug River watershed (11.4 square miles), with the remainder in the French River watershed (10.4 square miles). This drainage pattern can be further divided into the five sub-watersheds outlined below.

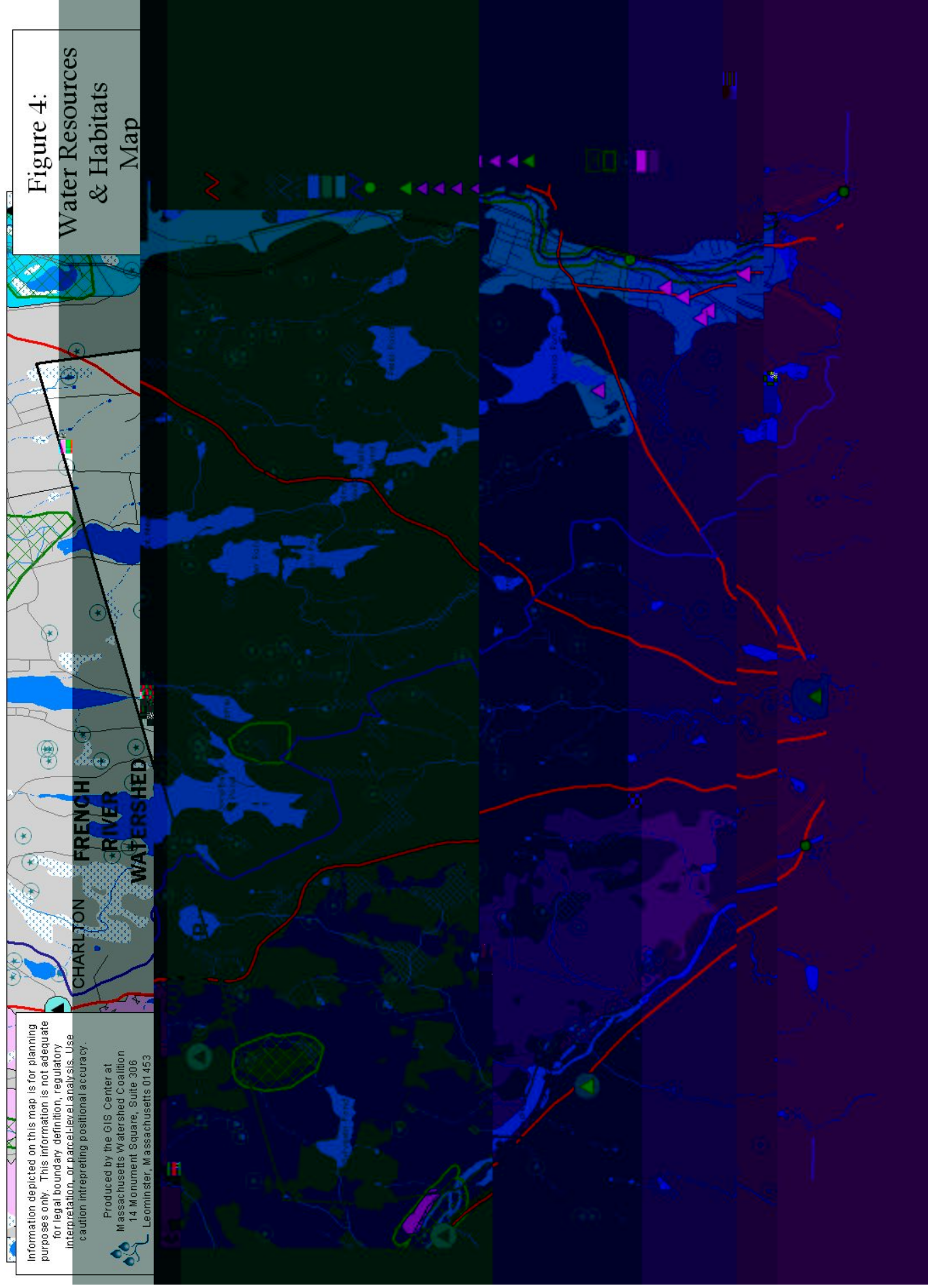
1. Several unnamed brooks drain most of the Town west of Route 31 (4,685 acres) and flow directly into the Quinebaug River. Silvestri Pond and Blood Pond are in this drainage.
2. Tufts Brook drains 2,632 acres in the middle of Town and then flows to its confluence with the Quinebaug River in Connecticut. Wielock Pond and Conant Pond are in this drainage.
3. Gore Pond is replenished by 688 adjacent acres and it overflows into Shepard Pond, which discharges to a small brook that flows across the town line to the South Charlton Reservoir.
4. Several small brooks that drain 3,698 acres in the northeast corner of Dudley, which flow in a southerly direction through a series of ponds to the French River. Merino Pond, Peter Pond, Lerner/Sawmill Pond, Wallis Pond, Hayden Pond, Mosquito/Tobins Pond, Easterbrook Pond, New Pond, Low Pond and Pierpont Meadow Pond are in this drainage. Pierpont Pond has a dike on its southern end that results in water flowing north into Charlton.
5. Several streams, including Potash Brook, flow southeasterly into the French River. This 2,301 acre drainage in the southeast corner of Dudley includes Packard Pond and Perry Pond.

Waterways – Several small streams in Leicester are headwaters of the French River, which then flows through Oxford and forms Dudley’s eastern border with Webster. The French River flows beside downtown areas in both communities, then south past the state line to its confluence with the Quinebaug River in West Thompson, Connecticut. There are two dams on the French River in Dudley and shoreline development ranges from moderate to light.

The Quinebaug River headwaters are in Warren and Brimfield. The Quinebaug flows in a south easterly direction past Sturbridge Village and former mills in Southbridge, then diagonally across the southwest corner of Dudley to the Connecticut state line. After joining with the French River, the Quinebaug flows southerly and into the Thames River. There is one dam near West Dudley and there has been little development of the Quinebaug shoreline.

In addition to these rivers, Tufts Brook and Potash Brook are the largest streams in Town. Tufts Brook begins in the middle of Town and flows southerly to its confluence with the Quinebaug in Connecticut. Potash Brook begins near the Shepherd Hill Regional High School, flowing south easterly to join with the French River just downstream of the railroad bridge in Town. Both brooks are free flowing. There has been light development along Tufts Brook, and more intensive building in the Potash Brook corridor.

Water bodies – The *Dudley Master Plan 2000* prepared by the Central Massachusetts Regional Planning Commission identified 14 water bodies greater than ten acres in size, as well as smaller ponds in Town. The report presented the summary table, shown below, of selected data that describe named water bodies. This report also notes the ponds in Ardlock Acres and Sunnyside Pond. All three ponds are in the French River sub-watershed.



(CMRPC Table NF-2)
Significant Water Bodies in Dudley

Name	Sub-watershed location	Size in acres	Free-flowing or Dammed	Shoreline Development Activity
Gore/Baker Pond	Gore	169 (94 in Dudley) (74 in Charlton)	One dam	Light
Pierpont Pond	Merino	90 (82 Dudley) (5 Charlton)	One dike	Moderate-to-light
Shepherd Pond	Gore	18	One dam	Light
Hayden Pond	Merino	41	Free-flowing	Moderate
New Pond	Merino	30	One dam	Light
Wallis Pond	Merino	23	One dam	Minimal
Larner/Sawmill Pond	Merino	25	One dam	Light
Peter Pond	Merino	44	One dam	Light
Merino/High Pond	Merino	72	Two dams	Heavy
Blood Pond	Quinebaug	21 (6 in Dudley) (15 in Charlton)	Free-flowing	None
Sylvestri Pond	Quinebaug	18	One dam	Minimal
Mosquito/Tobins Pond	Merino	9	Free-flowing	Minimal
Easterbrook Pond	Merino	5	Free-flowing	Minimal
Wielock Pond	Tufts	5	One dam	Minimal
Packard Pond	French	6	Free-flowing	Light
Conant Pond	Tufts	1	Free-flowing	Minimal
Perry Pond	French	8 (3 in Dudley) (5 Thompson)	One dam	None

Source: MA Department of Environmental Protection (DEP) and dam data provided by the DEM Division of Dam Safety.

Some of the dams in Town pose a significant risk of loss of life and property damage if dam failure occurs. The Town accepted ownership of the dams previously owned by Stevens Linen. New state regulations will require owners to conduct engineering inspections of their dams and prepare emergency response plans. DEM offers grants for dam repairs and Dudley received funding in 1998 that was used to repair the Merino Pond dams and the Wallis Pond dam.

The CMRPC Master Plan explains that Dudley's ponds rarely exceed ten feet in depth and are subject to sedimentation and high nutrient levels. This report notes the three deepest water bodies identified by the University of Massachusetts Water Resources Research Center in 1972 are: Hayden Pond which had a maximum depth of 33 feet; Merino Pond which had a maximum depth of 20 feet; and Pierpont Pond which had a maximum depth of 14 feet.

Shorelines of ponds are mostly privately owned, but visitors occasionally use non-motorized boats/canoes on some of the ponds. Most ponds in Town have weed problems, which occur when extra nutrients act as fertilizer and cause too much plant growth. This condition upsets the balance of the pond ecosystem and results in less diverse aquatic life.

Variable Millfoil, Water Chestnut and Elodea are three problem weeds affecting ponds in Town. Benthic matting is somewhat effective for weed control in shallow spots, but is difficult to install in deeper water (matting covers weeds and blocks sunlight). Herbicides are an effective control at all depths, but are expensive and need to be reapplied every 2-3 years by licensed applicators. Pulling weeds by hand is another control measure, but this method is very labor-intensive. An herbicide was used in 2003 to control weeds in Pierpont Meadow Pond, and chemical treatment is being considered for Shepard Pond. An article on the Town Warrant to fund weed treatment for Gore Pond was not approved, and homeowners abutting other ponds are seeking help from the Town to address weed problems.

The types of land uses and storm water controls greatly affect the quantity and quality of water that drains into ponds in Town. These existing and future development patterns also determine the condition of waters that flow from Dudley, which affect the health of rivers, ponds and water supplies in downstream communities. State agencies can provide information and expertise to help the Town prevent damage to its water resources. Additionally, there are citizen groups working to protect and restore waters in the Dudley area, including the Central Massachusetts chapter of the Congress of Lakes and Ponds (COLAP).

Flood Hazards - Narrow 100 year flood plain areas, designated as Zone A by FEMA flood insurance maps, occur along many streams and ponds in Dudley (Figure 7). The most extensive flood plain areas are found along the French River and Quinebaug River, but the Hodges Village Flood Control Dam in the Town of Oxford has mitigated flooding problems on the French River. Widths of flood hazard areas vary according to the topography and land uses. Effective drainage controls for proposed developments in Town can avoid local flooding problems downstream.

Wetlands - Science has found that wetlands have important functions and are especially valuable resources. Wetlands store water for recharge of aquifers and reduction of flood damage, and serve as natural filters that remove pollution from water sources. These highly productive areas provide food for sport and commercial fisheries, as well as habitat that supports many kinds of wildlife.

The reintroduction of beavers has created many new wetlands. Wherever a suitable site exists, beavers may build dams. The flooding of water behind beaver dams and their cutting of trees within about fifty feet of their ponds creates areas where there are no live trees. Increased sunlight and water promotes the growth of wetland species of plants. After several years at one site, the available food is usually consumed and the beavers move to a new place. Gradually the dams rot away, the wetland dries up and another succession of vegetative types moves toward a mature forest. Beavers usually return and begin the cycle again before a fully mature forest develops. This process maintains a rich and varied wildlife habitat next to streams and provides all the other benefits of wetlands as well.

There are about 510 acres of wetlands in Town, which cover roughly 3.6% of the total land area. The amounts of wetlands in each of Dudley's five sub-watersheds are:

- 207 acres in the Quinebaug River drainage area;
- 89 acres in the Tufts Brook drainage area;
- 37 acres in the Gore Pond drainage area;
- 112 acres in the Merino Pond drainage area; and
- 64 acres in the French River drainage area.

These wetlands are commonly found on the floodplain areas along perennial brooks, and help to maintain stream flows and preserve the quality of the Town's water resources. There are several large wetlands located near Route 31 in the northwest corner of Dudley (Figure 4).

The state's Wetlands Protection Act affords protection for wetlands, streams, open water bodies and land subject to flooding. Any proposed alteration of these resources or land within 100 feet of these resources requires review by the Dudley Conservation Commission. Some alteration of the 100-foot buffer may be allowed by issuance of an Order of Conditions by the Commission. Additionally, the Rivers Protection Act amends the Wetlands Protection Act, MGL Chapter 131 Section 40, and provides protection of perennial waterways within the Riverfront Area. In most municipalities, the Riverfront Area is 200 feet wide on each side of the river, as measured from the mean high water line. No permit shall be granted for work in the Riverfront Area that would result in significant adverse impact, and no permit shall be granted if there is a substantially equivalent economic alternative with less adverse impacts on the Riverfront Area.

Water Supply – Dudley's water supply comes from three Town-owned wells that are situated on glacial sand and gravel deposits, which form aquifers containing large quantities of groundwater. The U.S. Geological Survey (USGS) has identified five medium-to-high yield aquifers in Dudley. High yield aquifers can produce more than 300 gallons per minute and medium yield aquifers range between 100 to 300 gallons per minute. The Schofield Avenue aquifer is the source for two Town well fields, and has 62 acres of medium yield and 48 acres of high yield aquifer. Another sand and gravel deposit at the south end of Merino Pond supplies the third well field, and has 28 acres of medium yield and 7.5 acres of high yield aquifer.

The Dudley Water Department provides approximately 650,000 gallons per day to 2,100 residential, commercial, industrial and institutional customers, which is about two-thirds of the system's capacity. In summer, peak demands of 1,000,000 gallons per day equal the current capacity of the Town wells. The Zone II areas of contribution to the three well fields have been delineated (see Figure 7). The Water Department owns only a portion of these recharge areas, but can deny a proposed land use in the Zone II if it poses a threat to water quality (*Dudley Master Plan 2000*).

There has been a moratorium on water connections since 1987, and the Water Department continues to investigate potential groundwater sources. Elimination of leaks allowed the Town to provide fifty new connections over the past year, but additional permits will not be issued until a new source is obtained. There are three small high yield aquifers in other parts of Town. One is located on the south end of New Pond, and two are found adjacent to the Quinebaug River. The *Dudley Master Plan 2000* notes that these aquifers may be too small to be used for future water supply sources.

D. VEGETATION

The vegetation in every community is largely determined by land use, climate, elevation and aspect, and soils types. Dudley is situated in the Southern New England Coastal ecosystem, which includes diverse wildlife habitats. The Town landscape is dominated by secondary growth forests that have grown back from times when nearly all of the land was cleared for agriculture and timber. Most of these forests are on upland sites that are fairly dry and well drained. Deciduous trees, such as oak and hickory, and conifers, such as white pine and hemlock, are common in upland forests. Understory shrubs include witch hazel, striped maple, blueberries, and a variety of herbaceous plants. In addition to upland sites, forested wetlands are found throughout the Town.

Many open fields remain in all parts of Dudley. There are more than 2,000 acres of pasture and cropland and hayfields. Numerous fruits are grown, including squash, pumpkins and blueberries, and there are several Christmas tree farms in Town. Hayfields and other agricultural areas offer important habitats, especially for songbirds and waterfowl. Species like bobolink and killdeer rely on open fields for nesting sites. Many declining populations of songbirds use recently abandoned cropland for nesting, and these areas provide cover and food sources. Since most of these open lands are privately owned, working with their owners is important to sustaining these resources.

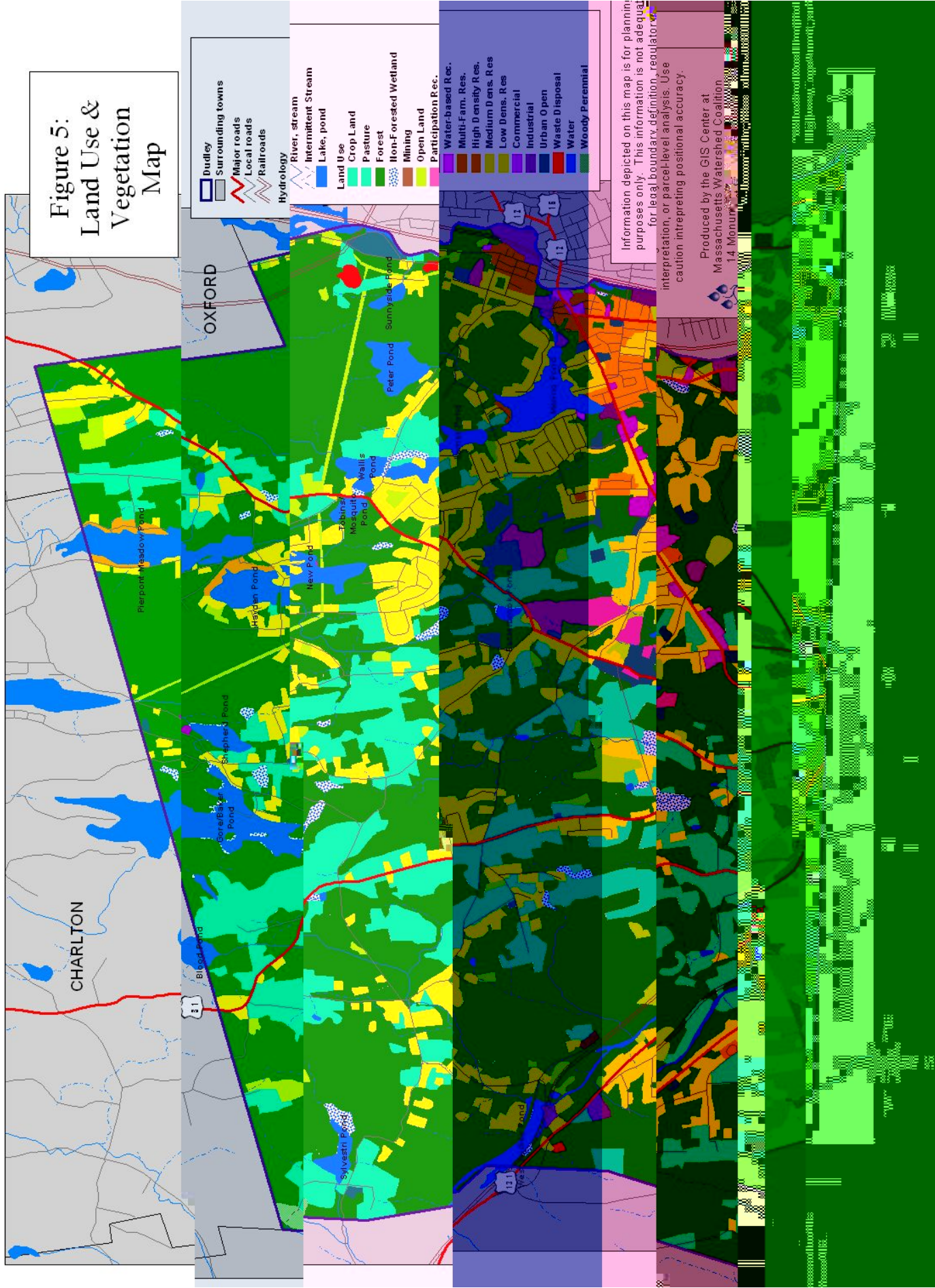
This combination of open and wooded land adds to the rural beauty of the Town. Many acres of woodlands are managed by private owners under the Chapter 61 program. The Conservation Commission has an opportunity to enhance conservation of Town resources using these managed lands as examples of the benefits of good forestry practices. The Commission can also institute programs for sound forestry practices on all Town lands. Consultation is available from state foresters with the Department of Conservation and Recreation, and Town departments can obtain this help to enhance management of Dudley's forest resources.

Forestry is an important part of the regional economy. Eventually most private or public owned forested areas are logged. This supports a complex of forest related industries. There is at least one sawmill in Town, and some homes in Dudley use cordwood as an important part of their heating.

E. FISHERIES AND WILDLIFE

Wildlife - Dudley's scenic landscape of farms, forests, wetlands, ponds, streams and rivers also assures diverse habitats that sustain a healthy wildlife population. "Habitat" is a term used to describe an area suitable for a wildlife species, and refers to available food, shelter, nesting or reproductive areas, and access to water. The greater the diversity of habitats, the greater the variety of wildlife the Town can support.

As noted in the *Dudley Open Space and Recreation Plan, 1988-92*: "... The uplands in Town range from rocky, wooded forests to rich agricultural land. Each type of habitat is inhabited by different species of wildlife. For example, pheasants and woodchuck are found on open land and brushy areas, foxes are found in woodlands and agricultural areas, deer are in wooded areas and



grouse are found in areas of early forest succession.” This document also notes that: “Tobin or Mosquito Pond ... is especially important for waterfowl and muskrats.”

Common mammals found in Town include: White-tailed deer, Coyote, Red Fox, Raccoon, Fisher, Mink, Bobcat, Striped Skunk, Porcupine, Opossum, Eastern Cottontail Rabbit, Beaver, Muskrat, along with squirrels, moles, voles, bats, shrews and mice. Reptiles including various snakes and turtles are common, as well as frogs and several types of salamanders. Many species of birds are abundant, including game birds (such as Pheasant and Woodcock), waterfowl (such as Wood Duck and Canada Geese) and an array of songbirds. Fishing birds such as Osprey, Kingfisher and Great Blue Heron frequent the waters of Dudley, and raptors such as Northern Harrier and Red-Tailed Hawk hunt for rodents and frogs in open fields and marshes.

It is often the lack of an appropriate habitat that makes a species of plant or animal threatened or endangered. Dudley is rich in wildlife partly due to the large tracts of natural areas with little human activity that degrades the habitats. The habitat is naturally varied by slopes of varying grades and orientations, varying soils and the activity of beavers. The habitat is artificially varied and enriched by wildlife management and some agricultural practices.

Hunting of game species provides recreation opportunities for Dudley sportsmen and women. State-owned lands in nearby towns are open for hunting, and many acres of private property are also accessible. Stocking programs of the Division of Fisheries and Wildlife augment upland game birds and other species at popular hunting areas throughout the region.

Fisheries - Dudley’s streams, rivers and ponds offer excellent fishing. Stocking programs of the Division of Fisheries and Wildlife (DFW) annually release trout into the French River. Smaller wild Brook Trout can be found in back woods streams with a little effort, and the DFW listing of wild and holdover trout streams includes Tufts Brook, as well as brooks in neighboring towns. The many fertile ponds in Dudley are not stocked, but offer opportunities for anglers to pursue warm water species such as bass, pickerel, perch, sunfish and horned pout.

The 2003 Audubon publication, *Inland Fishes of Massachusetts*, provides an inventory of all freshwater species in the state. This Audubon guide shows fish found in Dudley waters include: Common Shiner, Golden Shiner, Blacknose Dace, Fallfish, White Sucker, Creek Chubsucker, Yellow Bullhead, Brown Bullhead, Channel Catfish, Northern Pike, Chain Pickerel, Brook Trout, White Perch, Pumpkinseed, Bluegill, Smallmouth Bass, Largemouth Bass, Black Crappie, Swamp Darter, Tessellated Darter and Yellow Perch.

Special Habitats – The Natural Heritage & Endangered Species Program (NHESP) is the state agency that is responsible for protecting the approximately 190 species of animals and 258 species of plants that are listed as Endangered, Threatened or of Special Concern in Massachusetts. The NHESP provides maps of “priority habitats” that show the habitats of rare plants and animals, as well as “estimated habitats” where rare wildlife have been observed over a 25 year period. The maps of “priority” and “estimated” habitats coincide for most locations.

The NHESP maps show four important habitats in Dudley (see Figure 4), which include:

- An area beside the Quinebaug River that extends across the Dudley-Southbridge line;

- A narrow corridor along most of the French River in Dudley;
- An estimated habitat that includes a small wetland east of Gore Pond; and
- An area northeast of Sylvestri Pond that extends into Charlton.

Rare species found in Town include: Marbled Salamander, Spotted Turtle, Triangular Floater mussel, Creeper mussel, and two vascular plants – Bristly Buttercup and Culver's Root. To protect these species, their exact locations are not made available to the public.

The Massachusetts Endangered Species Act provides protection for priority habitats, and requires review by the Town Conservation Commission of proposed land uses that can affect these areas. Estimated habitats of rare wildlife identified by the NHESP are also regulated by the Wetlands Protection Act. NHESP will determine if an area to be altered by a development will have an adverse impact on a state-listed species and recommend measures needed to protect the habitat.

In addition, NHESP has prepared a statewide BioMap that identifies "Core Habitat" areas of rare species, and "Supporting Natural Landscape" areas that buffer Core Habitat and provide habitat for common species in Massachusetts. There is a small "Core Habitat" area beside the Quinebaug River at the Dudley-Southbridge line, and a large "Supporting Natural Landscape" area between the Quinebaug River and Route 31 (see Figure 4).

Vernal Pools - These small ponds occur in early spring and usually dry up in summer. Vernal pools host a unique biotic community because they are fish-less and allow salamanders, frogs and other species to breed undisturbed by predators. Additionally, animals that live entirely on land often use these pools for watering holes, grazing of emergent vegetation and nesting materials. These temporary pools form in depressions on frozen ground and store water, which slowly percolates into the soil to replenish the ground water.

Figure 4 shows likely locations of vernal pools identified from aerial photographs. Certification of pools by the state enables these habitats to be protected from impacts of land development. While there are many potential vernal pools in Town, most of these have not yet been confirmed. The NHESP relies on local investigation of vernal pools and has published guidebooks to assist Town boards and residents in documenting their occurrence.

Management - Wildlife and fish are impacted by the loss or degradation of their habitats. The Town can have a positive effect by protecting habitats, including wetlands that are important for many animals and birds. By storing water, wetlands also reduce flooding and keep stream flows at higher levels during the dry times - improving the habitats of fish and other aquatic species. The wetlands protection review process offers a key means to avoid unnecessary damages to Dudley's aquatic ecosystems from proposed land uses.

As it grows, Dudley will be faced with the challenge of meeting increasing recreational needs of its population. In addition to acquiring land to preserve habitat and provide outdoor recreation opportunities, steps can be taken to manage these resources. These include enhancement of existing habitats, water management practices, stabilization of streams, pollution abatement and other conservation measures. Guidance and information on these matters is available from many state and federal agencies, as well as non-profit organizations.

F. SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

Scenic Landscapes - Dudley is a beautiful, quiet town with a pleasing rural character defined by its rolling hills, farm fields and forested areas. As noted previously, the central part of Town was cited as an especially scenic landscape in the 1982 *Massachusetts Landscape Inventory: A Survey of the Commonwealth's Scenic Areas*, which was prepared by the Department of Environmental Management (see Figure 6). Almost all of Dudley's hills have historically been dotted by the numerous farms, which define its rural character. Although some farm fields have vanished, many are under Agricultural Preservation Restrictions and remain as they were earlier in the century. In various locations, there are unobstructed views of a pastoral countryside, and this New England setting makes Dudley an attractive fall foliage destination.

Many local roads are winding lanes with woods, fields, stone walls, flower gardens and historic homes that enhance the Town's rural qualities. Dudley has listed Baker Pond Road as a "scenic road" with the state, and Marsh Road, Healy Road and Center Road also merit this designation. In addition, Dudley can work with the Town of Charlton to designate Route 31 as a scenic highway along its entire length in both towns.

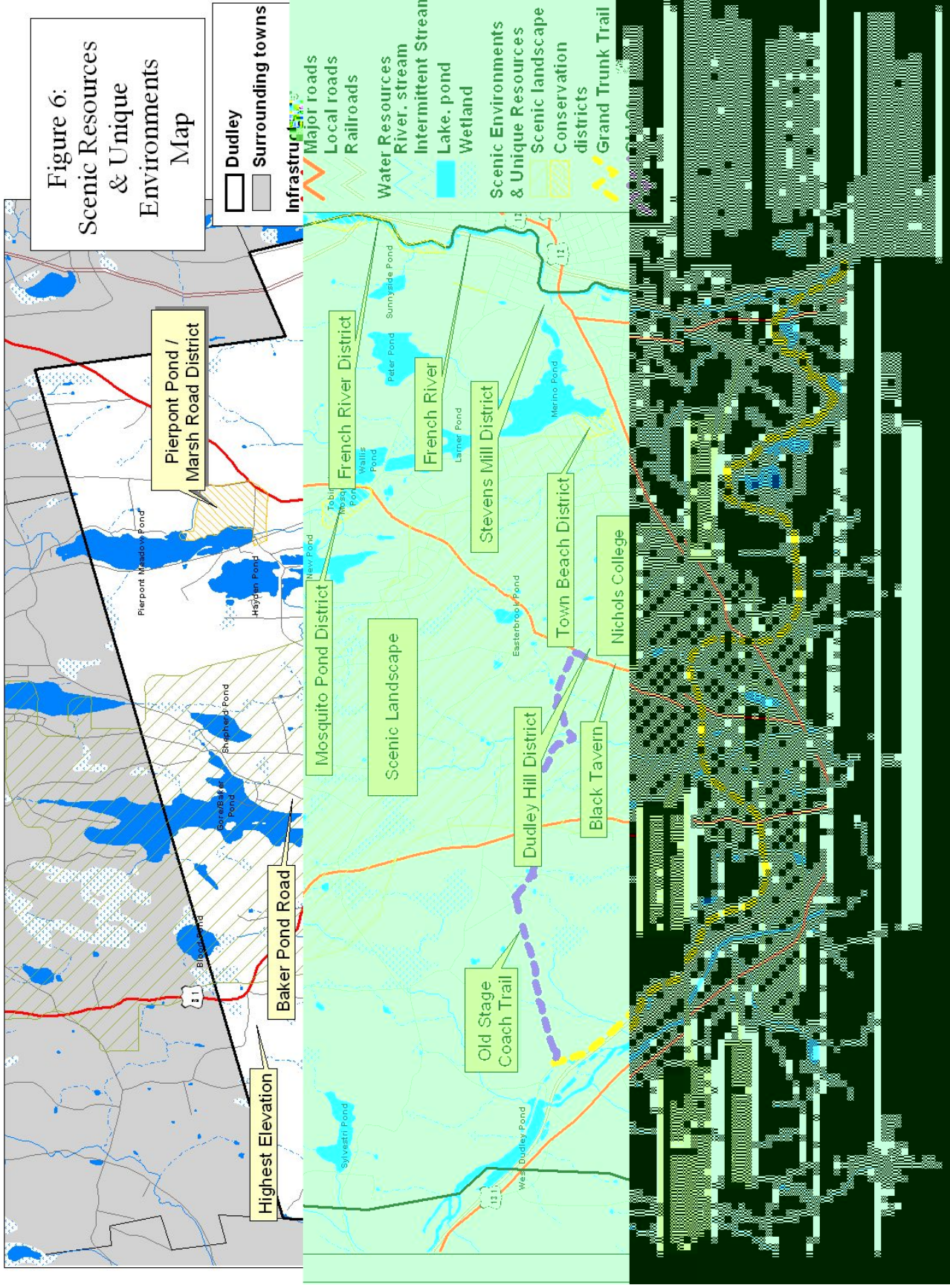
Several locations in Town offer scenic views, including Nichols College, Low Pond, part of West Main Street, and protected farmland along Dudley-Southbridge Road. There also is an overlook near Southbridge Road that provides scenic views of Connecticut landscapes.

Other landscapes add greatly to the pastoral charm of Dudley. The many beautiful ponds are popular resources that have been cherished by generations, although these are now experiencing serious problems. Clear streams splashing over rocks, signs of deer and wild turkey foraging, beaver lodges, and sunset views of thick woods are other pleasant scenery found in Town. These scenes may be taken for granted, but are slowly disappearing. Private farm and forestlands contribute many public benefits, so it is wise to work with landowners to ensure the future of Dudley's scenic landscapes.

Cultural, archeological and historic features – The Dudley Historical Commission has received funding to update the Town's Historical Survey. As a result of the Commission's nomination, the Black Tavern on Dudley Hill is included in the National Register of Historic Places. Many other building and sites in Town are eligible for nomination to the National Register, and there are three proposed historic districts:

- Dudley Hill District, which contains 35 structures and includes the Town's colonial center and Nichols College;
- Perryville District, a unique intact industrial village of 15 structures built in the 19th century;
- Stevens Mill District, an example of the early and middle periods of New England textile industry and mill housing, which contains 27 structures.

Unique Environments - There is no state-designated Area of Critical Environmental Concern (ACEC) in Dudley. However, the Zoning Bylaws have created Conservation Districts to protect certain natural features in Town. These special use regulations require land within the District to remain primarily undeveloped, and permitted uses include: farming, conservation; historic feature; hunting preserve; park; parkway; playground; wood lot; reforestation area; wildlife reservation;



watershed and water supply protection area; and nature center. The four Town-designated Conservation Districts are:

1. Pierpont Pond/Marsh Road District - a 34 acre area that includes Massachusetts Audubon Society land and two properties managed by the Dudley Conservation Commission.
2. Town Beach District - approximately 14 acres on Merino Pond that includes the Town beach.
3. French River District - a narrow 4.3 acre strip of privately owned land that runs parallel to Oxford Avenue.
4. Mosquito Pond District - includes 12.6 acres of private land west of Oxford Road, which will be permanently protected by the owner.

The French River and the Quinebaug River are other unique places, which had a prominent role in the local development of water-powered industries. Due to public investments in wastewater treatment facilities, water quality has steadily improved and now offers opportunities for Dudley residents to enjoy the amenities of the French and Quinebaug Rivers. These resources are largely inaccessible at present, but recent expansion of the Quinebaug-Shetucket Rivers Valley National Heritage Corridor to cover Dudley can facilitate future riverfront recreation projects (*Dudley Master Plan 2000*).

Several regional features are closely associated with the French and Quinebaug corridors, including the former Grand Trunk rail line, the inactive P & W Southbridge rail bed, and the Old Stage Coach Trail. These historic rails and trails offer exciting prospects for creating new hiking/biking ways that can link the French and Quinebaug Rivers with existing open spaces in Town such as the Ardlock Acres conservation area.

G. ENVIRONMENTAL CHALLENGES

There are a number of concerns regarding water resources in Dudley, including sewage treatment, storm water management, waste disposal and community water supplies.

Sewage – About half of Town residents are connected to the Dudley-Webster sewer system. Sewer lines on the east side of Dudley service about one-eighth of the total land area in Town, and the other half of the population uses on-site disposal systems. Many parts of Dudley are not well suited to septic systems because there is groundwater near the surface or the soils have poor filtering capacity. Failing septic systems are a problem for waterways and water bodies, and the *Dudley Master Plan 2000* notes this is an ongoing challenge, especially for unsewered areas in zoning districts that permit small lots. Potash Brook below West Main Street is clear but appears to be lifeless, which may be due to septic systems and leachate from the landfill.

The *2002 Comprehensive Wastewater Management Plan (CWMP)* included a field survey of 109 residential properties to identify areas with failing on-site systems or marginal conditions that indicate the potential for system failures. This study found 10 failing systems and 14 marginal systems of the 109 properties surveyed. The pre-1970 structures with failing or marginal systems were slightly more than the post-1970 structures. The CWMP explains that “...dense development has generally not occurred in areas of extremely limiting soils types; hence, widespread problems... have been avoided.”

This report also indicates there is need for "...additional septic system control measures, such as establishment of a Wastewater Management District regulating the timely maintenance and repair of systems." In addition to the field survey, the CWMP reviewed Board of Health records between 1996-2002, which show there were 59 septic system failures and another 21 suspect systems. Based on the recent field survey information "... the most critical areas are the Dresser Hill, Leo Avenue, Raymond Avenue and Hickory Drive areas." In addition, the CWMP points out that lakefront areas are also critical "... due to their proximity to recreational waters."

Septic tanks need to be pumped out every two years. Increasing disposal costs may discourage people from doing this even though routine maintenance is much cheaper than replacing a failed septic system. The *Dudley Master Plan 2000* included recommendations to increase community awareness of proper maintenance and funding assistance available for repairing septic systems.

A moratorium has been imposed on new connections in the sewer service area west of Mason Road. There is an article on the Town warrant to provide funding for resolving several constrictions in the collection system between Mason Road and the treatment facility. If the Town Meeting approves the funding, the improvements can go out to bid and the sewer moratorium can be lifted.

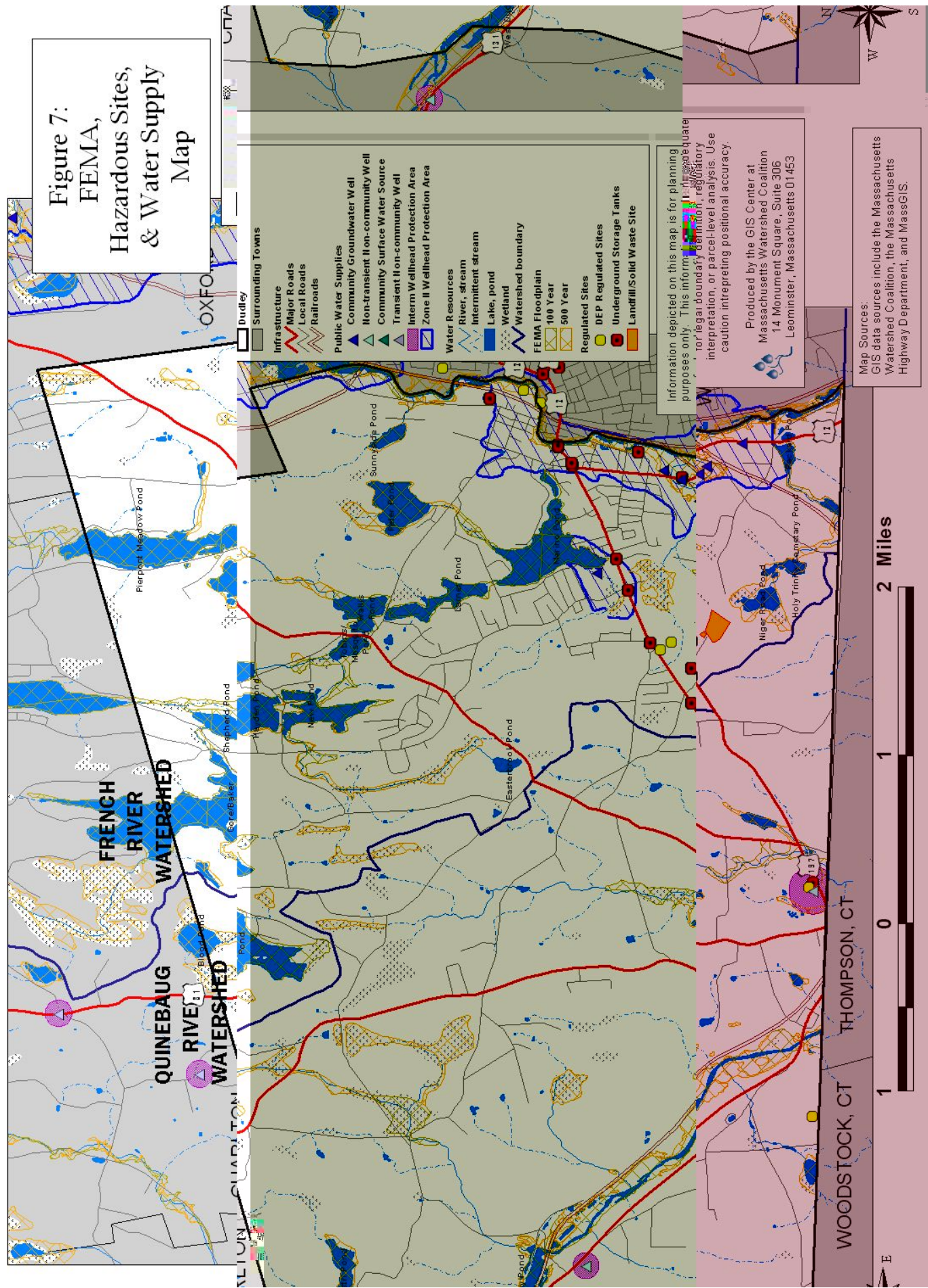
The Town can consider encouraging residential developments that cluster homes and include small wastewater treatment plants. This approach will eliminate problems with septic systems and avoid municipal costs for extending sewer lines to additional areas in Town.

Storm Water - "Non-point" pollution (i.e. common widespread sources rather than a single location) includes fertilizers, pesticides, erosion from land disturbances, road runoff, and other storm water discharges. The development of fields and woodlands for more intensive uses has increased impervious surfaces, which affect the quantity and quality of storm water draining into nearby streams and ponds. During summer months, the "first flush" of a passing thunderstorm is likely to release heated water, sediments and toxic pollutants at road drainage locations, which can prove lethal to aquatic life. Over time, cumulative impacts will reduce the populations and diversity of the insects, fish and other organisms found in aquatic ecosystems.

The Town adopted new regulations in 2003, which require storm water management plans for proposed subdivisions. As the Highway Commissioners, the Selectmen can mandate that there will be no direct discharge of storm water from Town roads into waterways. In addition, a storm water committee can be formed to work with Town boards to identify low-cost measures, such as vegetated buffers along roads and catch-basin inverts, which can mitigate existing problems. Environmental agencies, including the federal Natural Resources Conservation Service and the state Department of Environmental Protection, have publications that offer detailed information on storm water control measures.

Shoreline development is a related concern affecting streams and ponds. Lawn care products and other household activities can add to other nutrient sources. Community education programs along with local bylaws and state regulations, such as the Wetlands Protection Act and the Rivers Protection Act, are important tools for ensuring healthy water for current and future generations.

Figure 7:
FEMA,
Hazardous Sites,
& Water Supply
Map



Waste Disposal – A growing population will generate increased waste, including more hazardous household materials. The Dudley Recycling facility constantly seeks opportunities to contract with vendors and increase the amount of waste that is recycled. Compared with other Massachusetts communities, Dudley has had the second highest percentage of materials recycled for many years. (Worcester is first in the state and provides greater funding for recycling programs.)

Household hazardous waste collection days are temporarily suspended until a new hazardous waste coordinator is appointed. There is currently no funding in the Town budget for collection days, and this program will be reviewed after the new Fire Chief is selected.

Water Supply – The current well fields are very near capacity on peak demand days. The rapid growth in the past makes additional water sources a pressing issue today. The Town can accelerate efforts to prepare for 700 more homes and nearly 2000 new residents if the current rate of about 70 building permits per year continues over the coming decade. Along with additional supplies, the Water Department and Town boards will need to prevent impacts to existing water supply aquifers from land uses and development activities.

The Massachusetts Department of Environmental Protection recently prepared a *Source Water Assessment Program (SWAP) Report* for the Dudley Water Department, which includes an analysis of land uses located in the Town's water supply protection areas. This analysis finds the wells have "... high vulnerability to contamination due to the absence of hydrogeologic barriers ..." and high susceptibility to contamination due to existing land uses in the water supply (Zone II) areas. This SWAP Report lists 19 commercial and industrial land uses in the Zone II areas that pose a threat to the Town wells. Other concerns include unsewered residential areas and road drainage systems, which can contaminate the groundwater that supplies Town wells. The SWAP Report recommends specific actions to protect the Town's water including:

- Formation of a wellhead protection committee;
- Review of the current Aquifer Protection District bylaw;
- Preparation of a Wellhead Protection Plan; and
- More educational programs for homeowners and businesses located in Zone II areas.

The community survey found that respondents rated water supply protection as a very important concern. The Community Development Planning Committee recommends that the Town mandate sewer service throughout the Zone II area.

Continued growth of homes and businesses will also reduce the open spaces in Dudley and place increasing pressures on the Town's land, water and wildlife resources. As recommended by the housing element of the *Dudley Community Development Plan*, there are several options (e.g. transfer of development rights, cluster bylaws, etc.), which the Town can consider to respond to both its housing and open space needs.

Other concerns – Exhaust gases from motor vehicles and large industrial uses in the Midwest is damaging local forests and lakes. Some local waters are becoming more acid and this can impact fish populations. Although our forests have not been killed by acid rain, it may be retarding their growth by ten or twenty percent. When translated into ten or twenty percent less production of cordwood or timber for wood products, acid rain can be viewed as a serious regional problem.

Traffic on local roads is increasing and accidents, especially during inclement weather, can release materials transported by trucks into waterways. In addition, the Massachusetts Department of Environmental Protection (DEP) lists 28 sites in Dudley where oil or hazardous materials have been released. Some releases are undergoing initial investigation, other spills are being addressed by site assessments and/or remedial actions, and some locations have been cleaned up. The status of each site is on the DEP site list (www.state.ma.us/cgi-bin/wscreport.cgi).

The Millenium Power Plant in Charlton has been a potential concern for the Quinebaug River. This plant has a permit to withdraw water from the River for cooling, which could reduce its flows and thereby increase the relative levels of nutrients in the Quinebaug. An assessment of the flows in the Quinebaug was conducted by state agencies and Nichols College faculty. This study found the Millenium facility will impact brooks in Southbridge, but will have minimal affect in Dudley. The study also found that the West Dudley hydropower facility has a much greater impact and, at times, reduces river flow from 100 cubic feet per second (cfs) to 10 cfs. Relative to the Millenium facility, it was recommended that water withdrawals be reduced whenever the flow in the Quinebaug River is less than 70 cfs. In addition to these water uses, the health of the Quinebaug (and the French River) will be impacted by the increasing amounts of impervious surfaces in the watershed, which reduce the groundwater recharge that replenishes local feeder brooks, especially during dry times of the year.

Along with water quality concerns, beaver populations are on the rise in every community in central Massachusetts. While beaver ponds can provide benefits, such as groundwater recharge and wetlands habitats, their activities can flood roadways, damage trees, result in septic system problems and basement flooding due to raised water levels. Beavers can be a vector for *Giardia*, which is a public health concern for water supply reservoirs. The Town can help residents cope with these problems by providing information about these interesting creatures and requesting management assistance from state agencies and local trappers.

Section 5: Conservation & Recreation Lands Inventory

Dudley's conservation areas, recreation lands, and extensive agricultural lands enhance its rural character and environmental quality. These areas offer Town residents many recreation opportunities, provide essential habitat for wildlife, and help maintain the health of streams, ponds and water supplies. This section provides an overview; Appendix C has a complete listing of these lands.

Open spaces in Town can be categorized as either protected or unprotected. Fully protected lands are permanently committed for conservation and recreation uses, while other areas may have only limited or temporary protection. Appendix C includes definitions of the types of protected and unprotected lands.

Table 1 summarizes the amount of conservation and recreation lands according to ownership and level of protection. Town properties range from less than an acre to 54 acres in size. Other important open spaces are privately held, including the many parcels of farmland under the Agricultural Preservation Restriction Program. Currently, the Town of Dudley is second in the state in terms of permanently protected agricultural land.

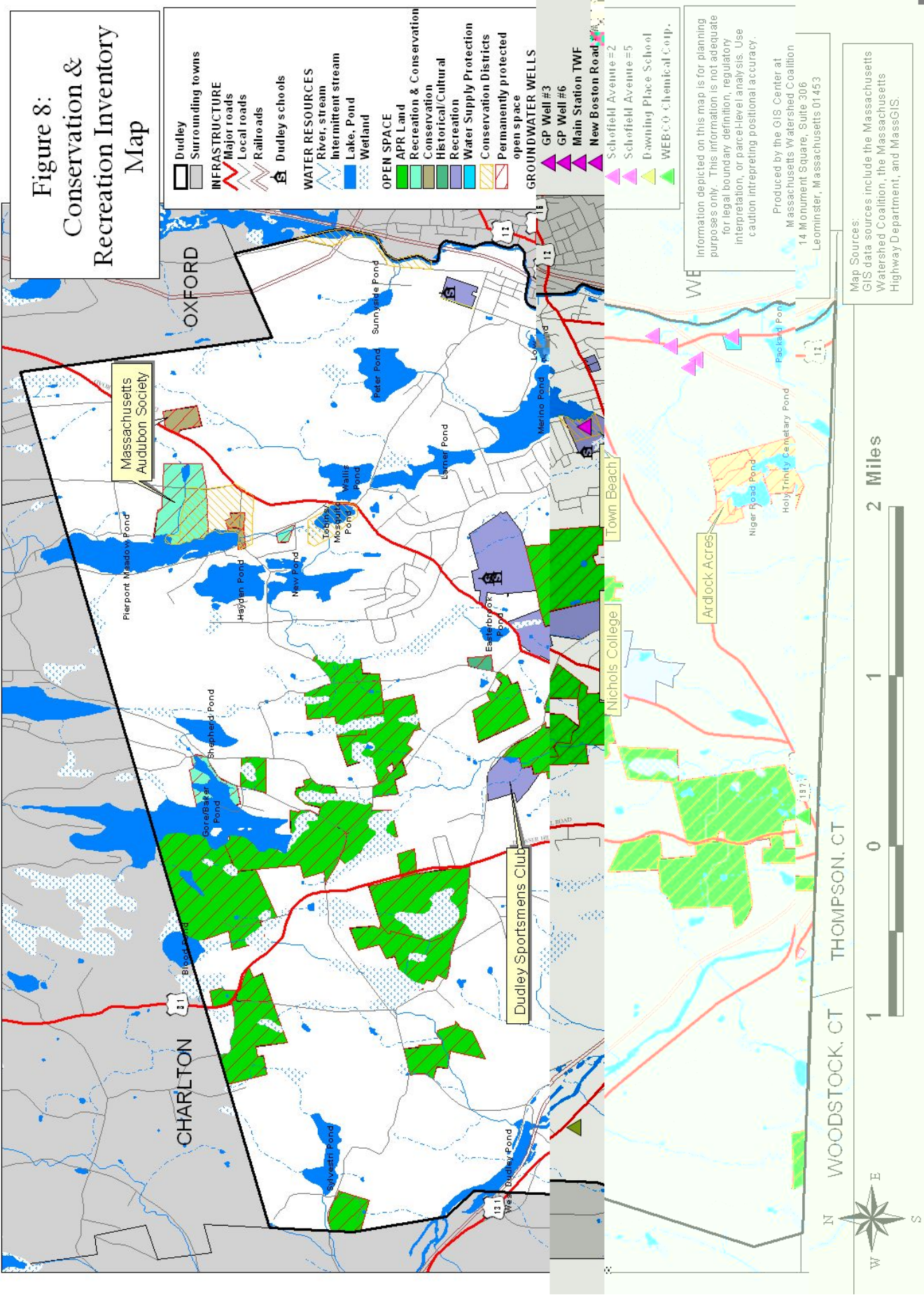
TABLE 1: Land Ownership and Protection Summary

Description and status	Acres	% of Land in Total
<i>Total land area of Dudley</i>	13472	100.00%
<i>Town-owned, limited protection:</i>		
• parks, recreation lands, schools	252	1.87%
<i>Town-owned, permanent protection:</i>		
• Town forests and other conservation lands	132	0.98%
<i>Private-owned, permanent protection:</i>		
• Agricultural Preservation Restrictions	1661	12.33%
• Conservation Restrictions	92	0.68%
• Massachusetts Audubon Society	130	0.96%
<i>Private-owned, limited protection:</i>		
• Chapter 61, 61A and 61B	3410	25.31%
<i>Remaining private-owned unprotected lands</i>	7,795	57.86%

Conservation and Passive Recreation Areas

Town Properties - The Town of Dudley owns 72 parcels of land. The names and sizes of these parcels are provided in Appendix C.

Ardlock Acres – Of particular importance is Ardlock Acres. This land is owned by the town and managed by the Conservation Commission. Prior to Town ownership, the land's development rights were donated by the Crawford Family to Dudley for protection of natural resources and watershed protection. This tract of land is 92 acres in size and surrounds Niger Road Pond and Holy Trinity Cemetery Pond. It is available for hiking and other passive recreation uses.



Town Beach - The Town Beach is located at the southern end of Merino Pond and is open to the public from Memorial Day to Labor Day. This active and passive recreation site is described in more detail under the ***Local Ponds*** heading below.

Conservation Districts - In 1969 the Town created four conservation districts (see Figure 8). Conservation Districts are established to protect certain natural features in Dudley. The intent of this provision is to prevent the use of land within the Conservation District from inconsistent or unaccepted conservation practices for woodlands or park area (Town of Dudley Zoning Bylaws, 2002). These areas are primarily comprised of private lands that have a Conservation District zoning designation. A brief description of these districts can be found below.

District 1. Pierpont Pond/Marsh Road Conservation District
This district consists of 34 acres and is located on the eastern side of Pierpont Pond, extending east to Marsh Road and Dudley-Oxford Road. The district's northern end covers a large parcel owned by the Massachusetts Audubon Society. The Dudley Conservation Commission manages two properties, totaling eight and a half acres, along Hayden Pond Road. Both these properties fall within the district. The potential exists to permanently protect more land within this district.

District 2. Town Beach Conservation District
This district consists of roughly 14 acres and is located along the southwest shoreline of Merino Pond, just off West Main Street and Lakeview Ave, and behind the Mason Road School. The Town Beach within this district consists of a third of an acre and is actively managed by the Dudley Recreation Commission.

District 3. French River Conservation District
This district consists of 4.3 acres located between the River to the east and the following roads to the west: Oxford Avenue, Cemetery Road, and Old Oxford Road. The district consists entirely of privately owned land.

District 4. Mosquito Pond Conservation District
This district consists of 12.6 acres and is located just north of the intersection of Charlton Road and Dudley-Oxford Road. The district covers almost all of Mosquito Pond, as well as wetlands and land adjacent to Mosquito Pond. Again, this district consists entirely of privately owned land.

Local Ponds: The following ponds have recreational use or have significant lands surrounding them. The Town has accepted ownership of the dams for many of these former mill ponds.

Gore Pond – The western and southern sides of Gore Pond are surrounded by large parcels of Agricultural Preservation Restriction land. There are two parcels of Town owned conservation land located on the eastern side, totaling approximately 19 acres.

Merino Pond – The public Town Beach is located on the southwest shore of the pond, at 1 Lakeview Avenue, and is managed by the Dudley Recreation Commission. No entrance fees are charged; there is a lifeguard during the summer, bathroom facilities, a small playground, and picnic

tables. Access to the Beach is from either the Mason Road School parking lot or from 1 Lakeview Avenue. No parking is available at the Lakeview Avenue entrance. This area is also a public water supply, with a town well in operation; a large dirt path leads from the Beach to the Water Department land. The majority of the land surrounding the pond is residential.

Low Pond –Public access is currently being proposed for passive recreation on this pond via a seven-acre parcel of Town land.

Mosquito Pond – A conservation restriction is currently in process, to be maintained by the Conservation Commission. Due to the large amount of plant growth in the pond, the primary potential use is as a wildlife viewing area.

Pierpont Meadow Pond – This linear pond runs in a north-south direction and is located in the northeast part of town, sharing the northern portion with the Town of Charlton. A large parcel of Massachusetts Audubon Society land abuts the eastern edge of the pond. The Town also owns a portion of land adjacent to the southern side of the Pond that is managed by the Conservation Commission. As there is Town-owned land present, there is potential for community access.

West Dudley Pond – Located roughly parallel to the P&W Railroad and Route 131, this pond lies in both West Dudley and the Town of Southbridge. The Quinebaug River flows through the pond. No known recreation occurs here.

The shorelines of the following ponds are privately owned and community access is very limited:

Hayden Pond – located southwest of Pierpont Meadow Pond, Hayden Pond is privately owned and almost completely surrounded by residential land;

New Pond – New Pond is situated directly south of Hayden Pond;

Shepherd Pond – Shepherd Pond is found to the east of Gore Pond;

Sunnyside Pond – located in the eastern side of town, near the French River;

Sylvestri Pond – mostly surrounded by forest, this pond is located in the northwest area of Town;

Wallis Pond – Wallis Pond straddles the Dudley-Oxford Road, southeast of New Pond;

Larner Pond – Larner Pond is located south of Wallis Pond and north of Merino Pond;

Blood Pond – Blood Pond is located on the Dudley–Charlton border; and

Peter Pond – Peter Pond is located between Wallis Pond and Sunnyside Pond.

State Properties – Although there are no state forests in Dudley, the nearby Douglas State Forest and the Wells State Park in Sturbridge offer diverse recreational opportunities for area residents. Additional state conservation areas in surrounding towns include Breakneck Wildlife Management Area and Merrill Pond Wildlife Management Area.

Private Lands –

Massachusetts Audubon Society – The Massachusetts Audubon Society owns two large parcels in Town, encompassing approximately 130 acres. The first parcel is Pierpont Meadow Sanctuary, located to the east of Pierpont Meadow Pond. The second parcel is located nearby, on the opposite side of Dudley-Oxford Road.

Many farms remain in Dudley and a large percentage of them carry Agricultural Preservation Restrictions (APR). 28 parcels, which include portions of 16 farms, have been protected by the state Agricultural Preservation program. The Town of Dudley has one of the highest percentages of protected agricultural land in the state.

Some landowners participate in voluntary Chapter 61 programs that benefit forestry, agriculture or open space uses. Owners of ten acres or more acres who manage their land for forestry uses can enroll in Chapter 61, which allows a 95% reduction in property taxes. Owners of five or more acres can enroll in Chapter 61A if they use their land for agriculture, or they can enroll in Chapter 61B if their land is used for open space/recreation purposes. The Chapter 61A and 61B programs also allow a reduction in property taxes. Communities have the right of first refusal on Chapter 61 lands if owners sell or convert to residential, commercial or industrial uses (unless it is a residential use for a family member).

There are 5 parcels in Dudley which are assessed under Chapter 61, as well as 47 parcels under Chapter 61A and 2 parcels of land under Chapter 61B. Owners who sell their property for development must pay the Town a portion of the lower taxes paid while participating in Chapter 61. The ownership and acreage of these lands are listed in Appendix C.

Private stewardship of lands preserves open fields, productive forests and scenic stream valleys throughout the Town. Often, Chapter 61 lands have been owned by families for generations and have important places in Dudley's history. The Town's right of first refusal is an important conservation opportunity. To be prepared, the Town should have a policy and a well-defined process for working with a Chapter 61 landowner who decides to divest the property.

Active Recreation Areas and Facilities

Shepherd Hill Regional High School – The towns of Dudley and Charlton share this high school, which is managed by the Dudley-Charlton Regional School District. It is located in the eastern side of Dudley, at 68 Dudley-Oxford Road, south of the Mason Road and Dudley-Oxford Road intersection. There are two indoor gymnasiums, which are used during the school year for physical education classes and after school athletic programs. The main gym holds basketball courts, volleyball courts, and a weight room, while the auxiliary gym holds the gymnastics and wrestling facilities. By arrangement, the gymnasiums are available evenings for activities such as adult volleyball. The grounds have areas for soccer, football, baseball, softball, field hockey, tennis, and basketball.

Dudley Middle School – This middle school serves students from Grades 5 to 8 and is managed by the Dudley-Charlton Regional School District. It is located in the eastern side of Dudley, at 70 Dudley-Oxford Road, adjacent to the Regional High School. There is a playground and one indoor gymnasium, which are used during the school year for recess, physical education classes and after school programs such as soccer and gymnastics. By arrangement, the gymnasium is available evenings for activities such as adult volleyball. The grounds have two soccer fields and a baseball/softball field.

Dudley Soccer Association Fields – The Dudley Soccer Association recently purchased approximately 8 acres of land to create multiple full size soccer fields. The land is located across the street from the Shepherd Hill Regional High School.

Nichols College - This private college had its origin as Nichols Academy in 1815, with the College (as seen today) founded in 1971. Throughout its history, the school has been closely tied to the Town. Its facilities include: an outdoor volleyball court, 6 outdoor tennis courts, 2.5 outdoor basketball courts, baseball/soccer fields, field hockey/lacrosse field, and a field house with weight room, basketball court and pool. The outdoor fields and courts are used by Town residents. The College also does allow organized sports groups in town to use their baseball and football fields on occasion.

Webster-Dudley Golf Club - The Webster-Dudley Golf Club, a 70-acre public golf course is located near Nichols College in Dudley. It is owned and operated by a non-profit board of trustees from the local golf community.

Dudley Sportsman's Club – The Sportsman's Club has approximately 35 acres located in the center of Town, along Dudley-Southbridge Road, east of the Partridge Hill Road intersection. This Club is active, with a stocked pond for fishing and land for hunting.

J. M. Crawford Veteran's Memorial Field - This field is located next to the Dudley Elementary School and provides a total of four youth softball and baseball fields, as well as a small section of playground including swings, slide, and jungle bars. It is operated by the Dudley Little League Association.

J. M. Crawford Veteran's Memorial Park (Pine Street Park) – Also located next to the Intermediate School, this property is under the jurisdiction of the Dudley Parks and Recreation Committee, and has an outdoor full size basketball court and walking paths along with the potential for a winter outdoor skating rink.

Eben Stevens Park- This public park is located on River Street, near the bank of the French River. Just under an acre, the field here was formerly used by the Dudley Soccer Association and now managed by the Parks and Recreation Committee.

Skate Park – Found at 71 West Main Street, behind the former West Main Street School, this park is approximately 150' by 80' in size. Six skating structures are found within the fenced area making this a popular site for skateboarders.

Fun Zone – The Fun Zone is a large playground designed especially for small children and toddlers, also located at 71 West Main Street, the former West Main Street School. It was installed in 2001, was upgraded last year and is in excellent condition.

Kid Zone/Mason Road School Playground – This early elementary school (pre-Kindergarten, Kindergarten, and 1st grade) located on Mason Road has a popular playground that is relatively new. The main parking area and public access for the Town Beach are located here. There are also

unofficial dirt walking paths in the wooded area next to the parking lot and playground, as well as a path to the Water Department land.

Dudley Elementary School Playground – Another playground is located at the local elementary school (Grades 2, 3 and 4), adjacent to J.M. Crawford Veteran’s Memorial Field. The playground has swings, slides and climbing equipment, is in very good condition and is managed by the School Department.

In addition to these properties, there may be lands the Town holds title to as a result of owners defaulting on property taxes. Tax-title lands have little protection, but may abut conservation and recreation areas. These lands can be useful to leverage open space investments by state agencies. An inventory of tax title lands can identify potential conservation and recreation areas for Dudley residents at very low cost.

Section 6: Community Vision

A. DESCRIPTION OF PROCESS

This Open Space and Recreation Plan is intended to serve as the comprehensive guide on matters of conservation and recreation for Town boards and Dudley citizens over the next five years. The Plan also enables Dudley to be eligible to apply to the Executive Office of Environmental Affairs' Division of Conservation Services for financial aid to accomplish Town conservation and recreation projects.

This planning process continues a long-standing commitment to the conservation and recreation needs of Town residents. In 1988, the Conservation Commission developed the first Open Space and Recreation Plan with the active involvement from Town boards and a survey of community opinions. The 1988 Plan served the Town through the 1990s, and it was decided to update this information in 2003 as part of the Dudley Community Development Plan.

The Town Planner prepared a community survey that was distributed to 3,924 households with funding supplied by Massachusetts' EO 418 Community Development Planning Program. The survey return rate of 13% provided a good representation of the views of Town residents. Survey responses including write-in comments were compiled and analyzed. The Community Development Plan Committee¹ carefully reviewed these survey results and used this information to identify the Open Space and Recreation Goals below, as well as to assess the community needs described in the next section of this Plan.

B. STATEMENT OF OPEN SPACE AND RECREATION GOALS

A pastoral landscape of rolling forests and fields, combined with its small-town character and more affordable housing make Dudley a very attractive community. Most respondents to the 2003 Open Space and Recreation Survey clearly agree that Town character and conservation issues are a critical concern. These results show the majority of respondents feel it is important to protect open spaces for water supply needs, wildlife habitat and recreation. Survey responses also strongly favor the preservation of historic features and farmlands. Added to this is the Town's wealth of ponds, rivers, brooks and wetlands, which are highly valued by residents. Nearly two-thirds of the respondents will vote for town-sponsored land acquisition for open space and recreation purposes.

Overall, respondents seem fairly satisfied with the Town's existing recreation facilities. Survey responses indicate a need for additional facilities, especially conservation areas, sidewalks, multi-purpose trails, a senior center and a youth center. There was also strong interest in special events and recreation programs, including band concerts, youth programs and nature outings.

¹ The Committee includes the Town Planner, concerned citizens, and members of the Board of Selectmen, Planning Board, Parks and Recreation Committee, and Housing Authority.

Analysis of the responses suggests residents want the Town to publicize recreation programs and opportunities, and to improve the maintenance of recreation facilities.

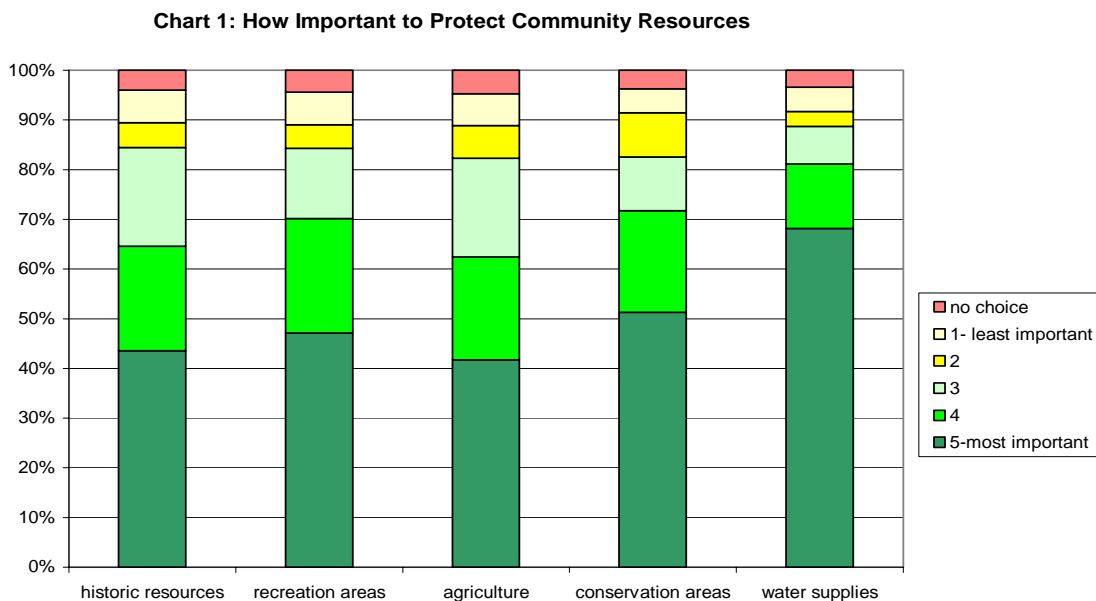
This community input helped the Committee to identify five broad goals for this Open Space and Recreation Plan:

- Sustain the health and quality of Dudley's water resources;
- Enhance and increase conservation lands in Town;
- Improve recreation opportunities for residents and visitors;
- Retain the Town's rural character;
- Promote community participation in conservation and recreation projects.

Section 7: Analysis of Needs

A. Resource Protection Needs

Dudley residents take pride in their scenic landscapes and community heritage, but development pressures will continue to affect the Town's rural qualities. As Dudley grows, there will be increasing need to preserve natural and cultural resources, such as wetlands, rivers, aquifers and historic places. Results from the 2003 community survey show strong support for resource protection. Most respondents feel it is important to preserve Dudley's open spaces and environmental quality. Survey results find that protection of the Town's water supplies is the most important concern. Responses also indicate broad agreement that it is important to protect historic resources, recreation areas, farmlands, forests and wildlife habitats. The chart below compares the survey responses regarding resource protection².



Survey results also indicate that the degradation of local water resources is a critical open space problem (see Appendix A survey findings, Question #5). The preservation of undeveloped corridors along streams will protect water quality, as well as the wetlands, floodplains and wildlife habitats that are closely linked to aquatic ecosystems. Vegetated buffers reduce pollution and keep streams cooler, thereby maintaining higher oxygen levels and more diverse ecosystems. Amphibians and mammals need undisturbed corridors to travel through their home territories, migrate seasonally and reproduce successfully. To address this need, the Town can

² Survey question #1 asked how important is it to preserve or protect the five resources shown by the chart above. Respondents were instructed to circle a number – 1 being the least important and 5 being the most important.

carefully administer the Wetlands Protection Act and the Rivers Protection Act to preserve lands beside rivers and brooks.

Many ponds in Town have weed problems that are a result of nutrient loading and sedimentation from street runoff and other pollution sources. Careful management of watershed lands and natural buffers along streams will help avoid these problems and reduce the costs of chemical treatments to control weeds. Pond abutters also need information to help them reduce sources of nutrients and manage undesirable weeds. The state Lakes and Ponds Program offers expertise and funding that can help improve the health of Dudley's ponds.

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B. Community Needs

The community survey finds there are many opportunities to enhance residents' enjoyment of the open spaces and recreation resources in Town. Survey respondents are somewhat satisfied with existing recreation facilities, but feel that additional facilities are needed. The survey indicates the five most-needed facilities include: conservation areas (48.7%); multi-purpose trails (48.3%); a senior center (47%), improved sidewalks (41.7%); and a youth center (41.1%). Neighborhood parks, picnic areas, and trail connections with surrounding towns are other needed facilities identified by the community survey and the Community Development Plan Committee.

Along with facilities, 37% of survey respondents would like the Town to provide additional recreation programs and special events for residents. The most desired programs and events include: concerts (53.6%); youth programs (48.3%); community fairs (41.7%), nature outings (37.3%); and drama productions (28.3%).

Over half of survey respondents (53%) want the Town to publicize recreation programs and opportunities. A low-cost way to improve recreation for residents and visitors is a guide that describes where public lands are located and what activities are available. This guide can also inform people about wildlife habitats, historic features and resource protection issues. If produced as hard copy and an electronic version on a local website, this information can spur public support for conservation and recreation projects in Town.

In considering recreation needs, it is worth noting that the 2010 population forecasts for Dudley predict:

- children under age 19 are likely to increase in number;
- Town residents between 20 and 44 years of age will decrease slightly;
- residents between 45 and 64 years of age will likely increase by 25%; and
- residents older than 65 years of age will increase slightly.

Based on a major increase in the 45 to 64 year old age group, the Town may want to place special attention on recreational facilities to serve this age group (conservation areas and trails).

Preservation of open spaces affords opportunities to address recreation needs of Town residents. Acquisition of land beside local streams can be used for recreation in addition to protecting water quality and wildlife habitats. As growth and development proceed, Dudley will need land for schools, police and fire facilities and other municipal purposes, which can be coordinated with the acquisition of open spaces for conservation and recreation purposes.

A conservation/recreation complex can provide community trails, nature study and picnic areas in addition to preserving aquifer recharge areas for future Town well-fields. Appealing multi-purpose facilities can attract visitors and boost tourism, which is becoming the largest sector of Massachusetts' economy. Increased tourism in Town will help support farming, recreation and home businesses, as well as generate employment opportunities for residents with diverse skills and incomes.

C. Management Needs

An important management issue is the maintenance and improvement of Town conservation and recreation areas. The community survey found that 40% of respondents feel the Town should improve the maintenance of existing recreational facilities, and nearly 20% of respondents would like parking improved. There are also ongoing needs to increase handicapped access to Town lands, as well as to install signage that identifies the locations and permitted uses of conservation and recreation areas.

There are many community priorities, but limited financial resources to address these needs. New funding sources will be important to the acquisition of open spaces and the improvement of recreation facilities. Nearly two-thirds of survey respondents would vote for Town-sponsored land acquisition. To address residents' strong interests, Dudley can consider adopting the Community Preservation Act or other mechanisms that can provide the financial resources to preserve special places. The Town should consider assigning personnel to seek grants that can help implement this Open Space and Recreation Plan.

In addition to acquiring land, the Town can use tax-title parcels to address open space and recreation needs. Options include the transfer of tax-title lands for recreation uses, and the designation of funds from the sale of tax-title properties for acquiring and maintaining Town conservation and recreation areas.

Zoning offers another means to protect open space and recreation resources. The Planning Board can recommend additional Conservation Districts to preserve important natural resources, such as the Quinebaug River corridor. The Town can also consider other new zoning bylaws that achieve both open space and affordable housing objectives. As part of these efforts, the Town needs to evaluate existing and potential conservation lands to ensure that significant habitats are protected.

Private stewardship is also important to the preservation of the farmlands, forests, wildlife and other community resources that are valued by residents. The Town needs to have a policy and well-defined process for working with Chapter 61 landowners who decide to sell or convert their property to more intensive uses.

As in many towns, numerous volunteer boards and committees are often working independently on a challenging array of community issues. There is ongoing need to improve communications, build partnerships and unify visions among Town boards and committees, which can help to coordinate efforts for preserving open spaces and enhancing recreation opportunities.

Section 8: Goals & Objectives

Proposed goals and objectives are based on the community survey and needs analysis, as well as the 1988 Open Space and Recreation Plan and 2000 Master Plan. Objectives are listed under the most closely related goal, but some objectives overlap with other goals. The goals below were introduced in Section 6: Community Vision.

GOAL: Sustain the Quality and Health of Dudley's water resources

Objective 1.1 - Protect the Town's existing ground water supplies.

Objective 1.2 - Identify and protect additional public water supply.

Objective 1.3 - Preserve the lands beside rivers and streams.

Objective 1.4 - Manage local watersheds that replenish streams and ponds.

GOAL: Enhance and increase conservation lands in Town.

Objective 2.1 - Protect wetlands, vernal pools and rare wildlife habitats.

Objective 2.2 - Preserve farmlands and forestlands.

Objective 2.3 - Establish additional Conservation Districts.

Objective 2.4 – Develop financial plan to acquire and maintain conservation lands.

GOAL: Improve recreation opportunities for residents & visitors. (e.g. Nichols College)

Objective 3.1 - Increase awareness and enjoyment of recreation resources in Town.

Objective 3.2 - Provide additional recreation programs and facilities for all demographic groups.

Objective 3.3 - Develop financial plan to support recreation improvements

GOAL: Retain the Town's rural character.

Objective 4.1 - Manage land uses along major roads (Routes 31, 131 & 197).

Objective 4.2 - Preserve historic and scenic resources.

Objective 4.3 - Develop tools to manage Town growth.

GOAL: Promote Community Participation in Conservation & Recreation Projects.

Objective 5.1 - Increase public awareness of open space and resource protection issues.

Objective 5.2 - Enhance communications among local, regional, state and federal agencies.

Objective 5.3 - Encourage partnerships with community groups to manage Town resources.

Section 9: Five-Year Action Plan

The Community Development Plan Committee proposes the following set of actions to address Dudley's open space and recreation needs. While each action is shown below according to a specific objective outlined in Section 8, the action will often serve to benefit multiple objectives.

The proposed schedule of actions offers a flexible framework, which should be reviewed annually and modified as needed to respond to special opportunities and resources available to implement this Five Year Plan. The chart below is organized according to the five major goals (shown in bold) and the corresponding objectives (shown in italics).

Sustain the Quality and Health of Dudley's water resources

Objective 1.1 - Protect the Town's existing ground water supplies:

- Identify priorities and methods to acquire undeveloped lands that recharge high yield aquifers (Water Department & Conservation Commission, Years 1-5);
- Extend sewer lines in areas that recharge high yield aquifers (Sewer Department, Year 5);
- Coordinate review of proposed land uses in Zone II district (Town Planner, Years 1-5);
- Distribute information to businesses and homeowners located in Zone II area about Best Management Practices to protect groundwater supply (Water Department, Years 1-5)
- Create high visibility information display at Town Hall and Library about private wells, septic systems, and underground storage tanks (Library Trustees & Board of Health, Year 1)
- Appoint Hazardous Waste Coordinator (Board of Selectmen, Year 1)
- Continue collection days for household hazardous materials (Hazardous Waste Coordinator, Years 1-5)

Objective 1.2 - Identify and protect additional public water supply:

- Work with Webster Water Department to provide emergency back-up water supply connections (Board of Selectmen & Water Department, Year 1);
- Complete study of potential sites for Town well-fields (Water Department & Conservation Commission, Years 1-2);
- Research and enact Conservation District to protect recharge areas for potential well-fields (multi-board committee, Years 1-3)

Objective 1.3 - Preserve the lands beside rivers and streams:

- Continue careful enforcement of the MA Rivers Protection Act (Conservation Commission);
- Identify priorities and methods to preserve the riparian corridor of Tufts Brook (Conservation Commission establish ad-hoc committee, Years 2-3);
- Research and enact Conservation District zoning for Quinebaug riverfront area (multi-board committee, Years 4-5);
- Create high visibility information display at Library about waterways, ponds, wetlands and wildlife habitats in Dudley (Library Trustees & Conservation Commission, Year 3);

Objective 1.4 - Manage local watersheds that replenish streams and ponds:

- Conduct study to assess conditions of drainage area that links ponds in northeast part of Town (Merino, Pierpont, Hayden, etc) and identify measures to prevent or mitigate water quality and habitat impact from land uses (Planning Board & Conservation Commission, Years 1-2);
- Require Best Management Practices (BMPs) to prevent and remedy pollution from proposed land uses and road runoff – obtain technical assistance from Worcester County Conservation District and MA Dept of Environmental Protection (Town Boards, (Years 1-2);)TjETEMC /P MCID32

Improve recreation opportunities for residents & visitors.

Objective 3.1 - Increase awareness and enjoyment of recreation resources in Town:

- Prepare and publicize guide to Town conservation and recreation lands, including trails map (Conservation Commission, Parks & Recreation Committee, Years 1-2);
- Print trails map for Ardlock Acres (Parks & Recreation Committee, Year 1);
- Improve signage at Town recreation areas (Parks & Recreation Committee, Year 1);
- Consider creating information display at Town Hall or Library (Library Trustees, Year 3);

Objective 3.2 - Provide additional recreation programs & facilities for all demographic groups:

- Form trails committee to improve hiking, biking, x-skiing and to work with state/regional agencies on trail connections with other towns (Parks & Recreation Committee, Year 1);
- Develop maintenance/improvement plans for recreation areas, including restrooms, parking, picnic areas, parks/play areas (Parks & Recreation Committee, Year 2);
- Assist ponds associations to address public access concerns and provide appropriate access points for Dudley residents (Open Space Committee & Police Department, Years 4-5);
- Conduct study of potential conservation/recreation complex to serve Town residents/visitors, and other municipal land needs (Selectmen, Open Space Committee and Parks & Recreation Committee, Year 5);
- Expand recreational programming by providing year-round activities for youth and adults (Council on Aging and Parks & Recreation Committee, Years 1-5);
- Install sidewalks to make neighborhoods more 'pedestrian-friendly' (Highway Department & Planning Board, Years 1-5);
- Increase ADA compliant access to recreation facilities (ADA coordinator, Years 1-5);

Objective 3.3 - Develop financial plan to support recreation improvements:

- Form ad-hoc committee to research options for acquiring and improving recreation areas (Finance Committee and Parks & Recreation Committee, Years 1-2);
- Research and transfer tax-title parcels for recreation uses (Town Treasurer, Parks & Recreation Committee, Years 1-5).

Retain the Town's rural character.

Objective 4.1 - Manage land uses along major roads (Routes 31, 131 & 197):

- Coordinate with Town of Charlton to designate Route 31 as scenic highway (Town Planner);
- Identify priorities and methods to preserve character of Route 131 and Route 197 (Historical Commission & Planning Board, Years 4-5);
- Establish a Dudley Pride Beautification Committee (Selectmen, Highway Department & Tree Warden, Year 1).

Objective 4.2 - Preserve historic and scenic resources:

- Designate additional scenic roads in Town (Planning Board, Years 1-2)
- Apply for state and federal grants to help property owners maintain historic buildings (Historical Commission and Planning Board, Years 2-3);
- Nominate Dudley historic districts for National Register of Historic Places (Selectmen and Historical Commission, Years 4-5);

Objective 4.3 - Develop tools to manage Town growth:

- Complete Dudley Community Development Plan (CDP Committee, Year 1);
- Research and enact zoning that will foster both open space and affordable housing objectives (Planning Board, Years 2-3).
- Consider use of cluster provisions and/or transfer of development rights to relocate land uses to most suitable areas (Planning Board, Years 3-4).

Promote Community Participation in Conservation & Recreation Projects.

Objective 5.1 - Increase public awareness of open space and resource protection issues:

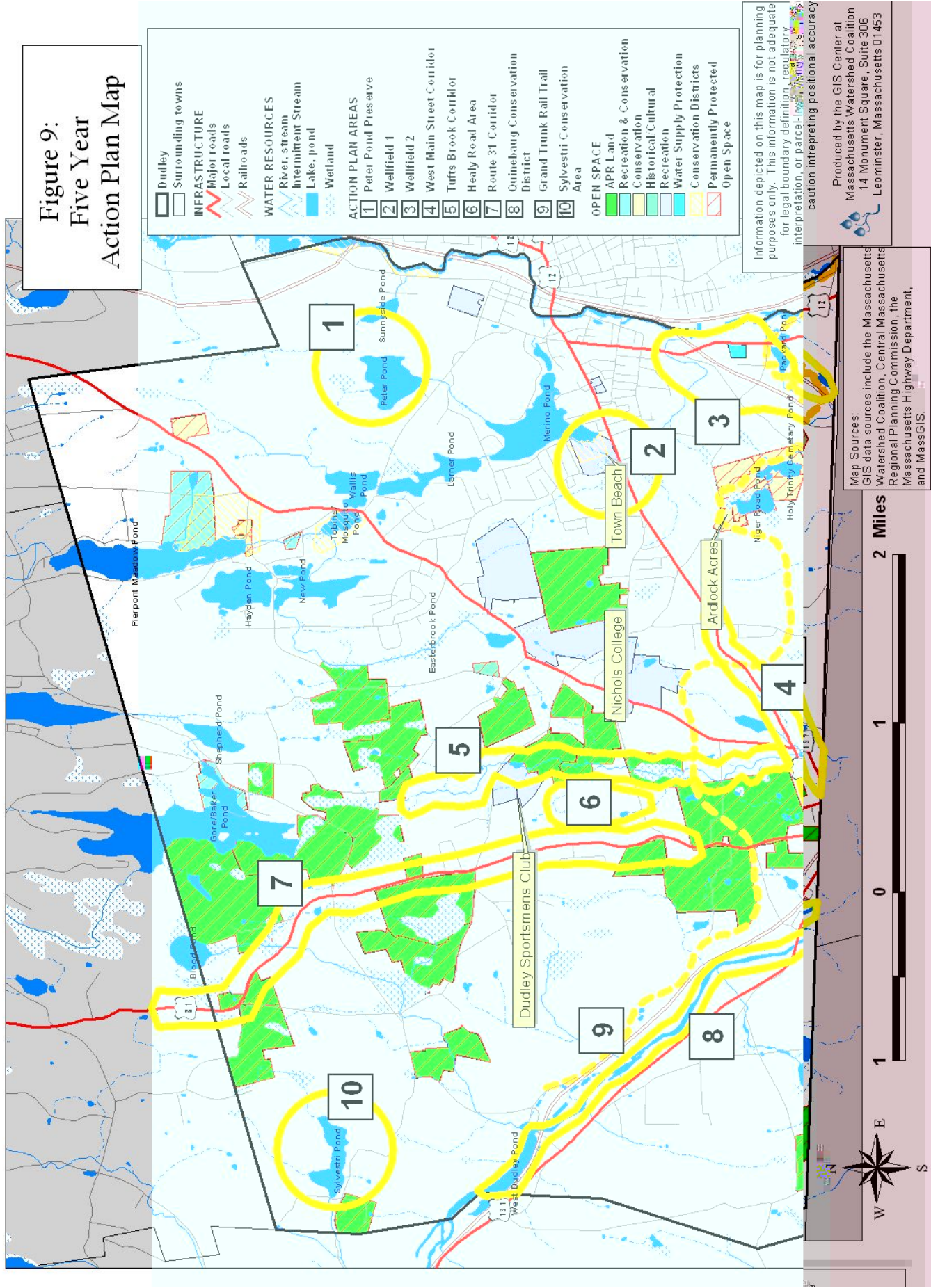
- Publicize and distribute this Plan to all Town boards (Open Space Committee, Year 1);
- Provide information at Library and Town Hall (Library Trustees, *see objectives 1.1, 1.3, 3.1*);
- Incorporate outdoor classroom concept into public school science curriculum (School Department, Years 1-5);
- Work with news media and distribute quarterly bulletin about conservation and recreation matters at library and other locations in Town (Open Space Committee, Years 2-5).

Objective 5.2 - Enhance communications among local, regional, state and federal agencies:

- Form Open Space Committee to carry out proposed actions and schedule annual meeting among Town boards and other agencies to coordinate implementation of Open Space and Recreation Plan (Selectmen, Year 1);
- Begin planning process to update Open Space Plan (all Town boards, Year 4).

Objective 5.3 - Encourage partnerships with community groups to manage Town resources:

- Encourage community groups, such as Boy Scouts and Sportsmen Club, to adopt and maintain Town recreation and conservation areas (Open Space Committee, Years 2-3).
- Coordinate with ponds associations in Town to obtain assistance from the state Lakes and Ponds Program (Open Space Committee, Year 2);
- Cosponsor workshop on citizen water monitoring with agencies/organizations, such as MA Water Watch Partnership and MA Riverways Programs (Conservation Commission, Year 3);
- Form ad-hoc committee to distribute information on pesticide/herbicide uses in Town (Board of Health, Year 4)



Section 10: Public Comments

This Open Space and Recreation Plan will be distributed to Town boards, including the Board of Selectmen, Conservation Commission, Parks and Recreation Committee, Planning Board, Highway Department, Historical Commission, Board of Health, Zoning Board of Appeals, Finance Committee, and to the Central Massachusetts Regional Planning Commission for review. Their letters of review will be included in the Appendix.

Section 11: References

Central Massachusetts Regional Planning Commission. 2000. Development Framework: 2020 Growth Strategy for Central Massachusetts. Central Massachusetts Regional Planning Commission, Worcester, MA.

Central Massachusetts Regional Planning Commission. 2001. Southwest Subregion Inter-Community Trail Connection Feasibility Study. Central Massachusetts Regional Planning Commission, Worcester, MA.

Commonwealth Engineers & Consultants, Inc. and The Louis Berger Group. 2002. Comprehensive Wastewater Management Plan. Commonwealth Engineers & Consultants, Providence, RI.

Dudley Conservation Commission. 1988. Dudley Open Space and Recreation Plan. Town of Dudley, MA.

Dudley Master Plan Committee and Central Massachusetts Regional Planning Commission. 2000. Dudley, Massachusetts, Master Plan 2000. Central Massachusetts Regional Planning Commission, Worcester, MA.

Dudley Planning Board. 2002. Zoning Bylaws of the Town of Dudley. Town of Dudley, MA.

Division of Conservation Services, MA Executive Office of Environmental Affairs. 2001. Open Space and Recreation Plan Requirements. EOEA/DCS, Boston, MA (available online at www.state.ma.us/envir).

Division of Conservation Services, MA Executive Office of Environmental Affairs. 2001. The Open Space Planner's Workbook: Companion to the Open Space and Recreation Plan Requirements. EOEA/DCS, Boston, MA (online at www.state.ma.us/envir).

Hartel, K.E., D.B. Halliwell and A.E. Launer. 2002. Inland Fishes of Massachusetts. Massachusetts Audubon Society, Lincoln, MA.

Executive Office of Environmental Affairs and Central Massachusetts Regional Planning Commission. 2001. Buildout Analysis: Dudley, Massachusetts. Central Massachusetts Regional Planning Commission, Worcester, MA.

MA Department of Housing and Community Services. 2003. Community Profile Web Page: Dudley, Worcester County, MA (www.state.ma.us/dhcd/iprofile/140.htm).

National Cooperative Soil Survey, USDA Natural Resources Conservation Service. 1998. Soil Survey of Worcester County, MA, Southern Part. Worcester County Conservation District, Holden, MA.

Natural Heritage and Endangered Species Program. 2000. A Field Guide to the Animals of Vernal Pools. MA Division of Fisheries & Wildlife, Westborough, MA.

Natural Heritage and Endangered Species Program. 2001. BioMap: Guiding Land Conservation for Biodiversity in Massachusetts. MA Division of Fisheries & Wildlife, Westborough, MA.

Natural Heritage and Endangered Species Program. 2001. Massachusetts Natural Heritage Atlas: 2000-2001 Edition. MA Division of Fisheries & Wildlife, Westborough, MA.

Natural Heritage and Endangered Species Program. 2003. Natural Heritage Program Web Page (www.state.ma.us/dfwele/dfw/nhESP/nhenviro.htm).

Office of Geographic and Environmental Information (MAS GIS), MA Executive Office of Environmental Affairs. July 2000. EOE/MassGIS Base Map Data and Environmental Data, Boston, MA.

University of Massachusetts. 2003. MISER Demographic Information Web Page: Dudley town, Worcester County, MA (www.umass.edu/miser/population).

U.S. Census Bureau Tables. 2000. Selected Social, Labor Force, Income, Housing and Population Characteristics: Dudley town, Worcester County, MA.

Appendices: Dudley Open Space & Recreation Plan

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Appendix A: Public Participation

The Committee's goal in distributing the community survey was to reach as many Dudley residents as possible. The surveys were mailed to all households in Town, and residents were asked to either mail to the Planning Board Office or drop off at one of several locations in Town.

A total of 511 completed surveys were received from Town residents. This Appendix provides the tally of survey responses and the minutes of Committee meetings.

Question 1 how important to protect					
	buildings & sites of historic interest	Open spaces for recreation	Open spaces for agriculture	Open space for conservation	open spaces for water supply needs
Most important 5	43.6%	46.8%	41.8%	50.9%	68.2%
4	21.0%	23.2%	20.6%	20.4%	12.8%
3	20.0%	13.9%	20.0%	11.0%	7.7%
2	4.7%	4.7%	6.3%	8.8%	2.9%
Least important 1	6.5%	6.7%	6.3%	4.9%	4.9%
no choice	3.9%	4.3%	4.7%	3.7%	3.3%

Question 2 actions to preserve open spaces							
	pay 2% more in real estate taxes	donate land to town or conservatn group	restrict deed to limit future uses	sell land at bargain price?	sell land at fair market value	vote for town sponsored land acquisition	improve cluster bylaw so its used
yes	41.7%	28.3%	46.6%	17.3%	54.6%	65.8%	56.0%
no	50.5%	57.4%	39.5%	67.6%	30.1%	24.2%	16.1%
no choice	7.9%	14.3%	13.9%	15.1%	15.3%	10.0%	27.9%

Q3 growth policy					
	no growth	growth evenly spread	concentration growth in existing developed area	concentrate growth in undeveloped areas	other (specify)
choice	23.6%	34.6%	25.3%	4.9%	0.0%
blank	76.4%	65.2%	74.5%	95.1%	92.1%

Question 4 housing options (o-oppose, f-favor, u-unsure)							
	single family residential <1/2ac lots	single family 1/2 - 1 ac lots	single family 1-2 ac lots	multi family residential - fewer than 3 units	apartment complexes more than 3 units	condos	town houses
favor	14.5%	51.7%	68.6%	31.6%	13.4%	23.8%	31.4%
oppose	68.8%	35.6%	17.9%	48.9%	71.5%	55.4%	46.8%
undecided	10.4%	8.3%	9.2%	14.9%	11.2%	17.3%	18.5%
blank	6.3%	4.3%	4.3%	4.5%	3.9%	3.5%	3.3%

	Question 5 critical open space problems						
	destruction of town character	disappearing wildlife habitat & forest land	disappearing agricultural land	degradation of water bodies & wetlands	degradation of drinking water supplies	lack of adequate recreation facilities	other
5	42.8%	59.9%	45.2%	60.1%	68.0%	28.9%	
4	19.3%	18.9%	19.8%	21.6%	14.3%	23.6%	
3	15.9%	11.2%	19.8%	9.8%	8.8%	22.4%	
2	5.9%	3.5%	5.9%	2.8%	1.8%	8.3%	
1	9.2%	4.1%	5.7%	2.9%	2.8%	10.8%	
no choice	6.9%	2.4%	3.5%	2.8%	4.3%	6.1%	

	Question 6 satisfaction with recreation facilities				
	young children	teenagers	young to middle aged adults	seniors	physically challenged
5	16.1%	9.8%	7.7%	11.2%	7.7%
4	18.3%	11.6%	10.6%	13.0%	9.8%
3	27.3%	29.1%	28.5%	24.6%	25.7%
2	13.4%	16.7%	19.4%	16.9%	15.3%
1	13.2%	21.0%	20.2%	21.8%	22.2%
no choice	11.8%	11.8%	13.6%	12.6%	19.3%

	Question 7 needed recreation facilities									
choice	no new facilities	youth center	multi purpose trails	family picnic areas	improved sidewalks	neighborhood parks/gardens	boat access points	fairgrounds	fishing access points	
	6.3%	41.1%	48.3%	28.1%	41.7%	37.9%	13.0%	5.7%	21.0%	
	conservatin areas	senior center	playgrounds	playing fields	skating facilities	tennis courts	basketball courts	indoor recreation center		
	48.7%	47.0%	26.7%	19.8%	13.4%	6.1%	7.9%	32.4%		

	Question 8 special events, programs							
	no new events/ programs	community fairs	concerts	dances	drama productions	nature outings	road races	youth programs
choice	10.6%	41.7%	53.6%	12.8%	28.3%	37.3%	12.2%	49.3%

	Question 9 strategy						
	publicize recreation programs	improve parking	improve handicapped access	improve maintnance	provide more recreation facilities	provide more recreation programs	none of the above - opportunities are adequate...
choice	53.0%	19.8%	17.9%	40.1%	38.3%	37.1%	15.5%
blank	47.0%	80.2%	82.1%	59.5%	61.5%	62.7%	84.5%

	Question 10 how long in town			
	0-5	5-10	10-20	more than 20 years
choice	12.0%	11.4%	18.9%	56.4%

	Question 11 current living situation								
	single alone	single adult - shared quarters	single parent with children at home	couple without children	couple with children at home	couple with children not at home	senior couple or family	senior living alone	other
choice	9.2%	3.7%	3.3%	9.4%	31.8%	13.2%	16.9%	7.9%	0.2%

Minutes of the 7/10/03 Community Development Plan Committee Meeting

Members present: Laurie Connors, Town Planner; Marguerite Flynn, Dudley Housing Authority; Ed Himlan, Massachusetts Watershed Coalition; Guy Horne, Planning Board; Chet Kulisa, Resident; Sandy Peterson, Resident; Joseph Sendrowski, Board of Selectmen; and Martha Tierney, Resident.

Everyone introduced themselves.

The following handouts were available at the meeting:

- Meeting Agenda
- Senior Work Off Abatement Programs
- Dudley Open Space and Recreation Survey Preliminary Analysis
- Environmental Inventory and Analysis
- Community Needs Analysis
- Summary of Open Space and Recreation Survey Responses
- Color Versions of the Maps

Laurie Connors mailed the meeting agenda, minutes from the June 5th meeting, and the survey responses to everyone prior to the meeting. Ed Himlan mailed a cover letter, draft Environmental Inventory and Analysis, draft Community Needs Analysis, draft maps (black and white versions), and Summary of Open Space and Recreation Survey Responses to everyone prior to the meeting.

Ed Himlan discussed the timeline for completion of the Plan. He said that he hopes to complete and distribute the draft Plan by the end of September.

Sandy Peterson distributed a handout about the Senior Work-Off Abatement Programs.

Laurie Connors distributed a handout describing interesting survey findings worthy of note. She highlighted inconsistencies, such as the fact that respondents generally support protecting open space but many are unwilling to pay for it. Ed Himlan said that the survey results were consistent with other communities of a similar size and demographic profile as Dudley.

Ed Himlan went over the Environmental Inventory and Analysis and distributed color version of the maps. He asked for comments/feedback.

Laurie Connors informed the group that she submitted an application to the Webster-Dudley Rotary Club for the construction of a passive recreation facility on Flaxfield Road/Low Pond. The facility would include a parking area, bike rack, trail, picnic tables, trash receptacles, and a dock to facilitate fishing and launching non-motorized boats.

Mr. Himlan told the group of new legislation that will affect dam owners. Because the Town of Dudley owns a number of dams, he wanted the Town to be aware of the legislation and the fact that an informative workshop concerning dam safety is scheduled for August. Ms. Connors

asked him to incorporate more information concerning the status of Dudley's dams and the new legislation in the Plan.

When asked, Mr. Himlan explained that the "high hazard" designation for the Merino Pond dams has to do with the amount of damage possible from dam failure rather than the structural integrity of the dams.

Several Committee members had comments concerning scenic roads/areas. Chet Kulisa suggested that Dudley work with Charlton to designate the portion of Route 31 extending from the Connecticut boundary to Charlton Center as a scenic highway. He also recommended that Healy Road receive this designation. Martha Tierney suggested that Marsh Road and Joe Sendrowski suggested that Center Road receive this designation.

Members identified three scenic landscapes worthy of note. One is the area of Dudley Southbridge Road before its intersection with Route 131. This area has a conservation restriction maintained by the Audubon Society. The other areas mentioned were the Hubbard property and an area of Lower Perryville Road that abuts the French River. This property is used informally for walking/swimming.

The discussion then shifted to environmental hazards. Ms. Connors asked Mr. Himlan to note in the Plan that a significant portion of the Zone II for Dudley's public wells is zoned for industrial development. Mr. Sendrowski suggested that the Town mandate all uses within Zone II areas to be connected to the municipal sewer system. Ms. Connors also asked Mr. Himlan to include mention of potential brownfield sites in Dudley and recommend possible ways to remediate them.

The meeting adjourned. The next meeting is scheduled for August 14th, at 7:00 pm in the Norman Rockwell Room.

Minutes of the 8/14/03 Community Development Plan Committee Meeting

Members present: Leo Biron, Parks and Recreation Committee; Laurie Connors, Town Planner; Ed Himlan, Massachusetts Watershed Coalition; Adelina Healy, Resident; Guy Horne, Planning Board; Chet Kulisa, Resident; Sandy Peterson, Resident; and Martha Tierney, Resident.

Everyone introduced themselves.

The following handouts were available at the meeting:

- Meeting Agenda
- Minutes of the July 10, 2003 Meeting
- Community Setting (Section 3)
- Conservation and Recreation Lands Inventory (Section 5)
- Land Ownership Information (Appendix C)
- Community Needs and Goals/Objectives
- Figure 7: Conservation and Recreation Inventory

Minutes of the 9/3/03 Community Development Plan Committee Meeting

Members present: Leo Biron, Parks and Recreation Committee; Laurie Connors, Town Planner; Ed Himlan, Massachusetts Watershed Coalition; Guy Horne, Planning Board; and Sandy Peterson, Resident.

The following handouts were available at the meeting:

- Meeting Agenda
- Minutes of the August 14, 2003 Meeting
- Section 6: Vision & Goals
- Section 8: Goals & Objectives
- Section 9: Five-year Action Plan
- Community Needs and Goals/Objectives
- Town Lands Inventory (Appendix C)
- Figure 9: Open Space & Parcel Information
- Map Showing Municipal Sewer System and Zone II Areas

Laurie Connors mailed the minutes from the August 14th meeting to everyone prior to the meeting. Ed Himlan e-mailed the draft Vision & Goals, Goals & Objectives, Five-year Action Plan, Town Lands Inventory, and Town Tax Parcels to everyone prior to the meeting.

Ed Himlan discussed the timeline for completion of the Plan. He then reviewed Section 6: Vision & Goals, Section 8: Goals & Objectives, and Section 9: Five-year Action Plan, asking for comments and additional information. Concerning Section 6, Laurie Connors suggested adding the Planning Board to the list of boards represented on the Committee. The Committee agreed that Section 8, Goals & Objectives were appropriate and acceptable. Comments concerning the Five-year Action Plan included the following:

- Leo Biron suggested limiting the number of action steps so as to avoid overwhelming those charged with implementation. He suggested asking the boards for input on the action items.
- Sandy Peterson suggested that the Friends of the Library may be willing to help create high visibility information displays about private wells, septic systems, underground storage tanks, waterways, ponds, wetlands, and wildlife habitats in Dudley. The Committee agreed that the appropriate committees to assist the Friends in this endeavor include the Board of Health and Conservation Commission.
- Laurie Connors agreed to determine who is responsible for sponsoring household hazardous materials days.
- The Committee agreed that Dudley should work with Webster, Southbridge, and/or Thompson Water Departments to provide emergency back-up water supply connections.
- The Board agreed to delete the following action item from Objective 1.4: "Conduct watershed management study for Tufts Brook drainage area."
- Ed Himlan suggested erecting granite markers as a way of encouraging residents to donate conservation land.
- Laurie Connors suggested adding the following action items to Objective 2.3:
 1. Create a methodology for rating existing or potential conservation land.
 2. Work to make sure that the most biologically important municipal lands are protected and managed appropriately.

- The Committee agreed to modify the first action item under Objective 2.3. It shall now read: "Research and enact Conservation Districts (Planning Board, Yr 1)".
- The Committee agreed to modify the second action item under Objective 2.3 and move it to Objective 4.3. It shall now read: "Consider use of cluster provisions and/or transfer of development rights to relocate land uses to most suitable areas (Planning Board, Years 3-4)".
- The Committee agreed that the appropriate timeframe for adoption of the Community Preservation Act should be changed to Years 3-4.
- Laurie Connors asked Leo Biron if the Parks & Recreation Committee received grant money to prepare and publicize a guide on the Town's conservation and recreation lands. Leo Biron agreed to check into it.

The Committee agreed to prepare comments on the remainder of the Action Strategy and be prepared to discuss them at the next meeting. The next Committee meeting was scheduled for 7:00 pm on Thursday, October 2nd in the Norman Rockwell Room.

Minutes of the 10/2/03 Community Development Plan Committee Meeting

Members present: Leo Biron, Parks and Recreation Committee; Laurie Connors, Town Planner; Marguerite Flynn, Housing Authority; Ed Himlan, Massachusetts Watershed Coalition; Guy Horne, Planning Board; Chet Kulisa, Resident; Sandy Peterson, Resident; and Joseph Sendrowski, Board of Selectmen.

The following handouts were available at the meeting:

- Meeting Agenda
- Minutes of the September 3, 2003 Meeting
- Section 9: Five-year Action Plan
- Town Lands Inventory (Appendix C)
- Figure 9: Open Space & Parcel Information

Laurie Connors mailed the minutes from the September 3rd meeting to everyone prior to the meeting. Ed Himlan e-mailed the agenda to everyone prior to the meeting.

Ed Himlan discussed the timeline for completion of the Plan. He then reviewed Section 9: Five-year Action Plan, asking for feedback. Comments concerning the Five-year Action Plan included the following:

- Sandy Peterson said that Library Trustees should be designated as the responsible party for all items currently designated as the responsibility of the Friends of the Library.
- Laurie Connors stated that the Hazardous Waste Coordinator is responsible for organizing household hazardous materials days. She explained that the position is currently vacant, since the job is usually the responsibility of the Fire Chief. She explained that the Board of Selectmen is responsible for appointing a Hazardous Waste Coordinator.
- The Committee agreed to include a new task under Objective 1.1: "Distribute a packet of "Best Management Practices" to businesses and homeowners within Zone II areas (Water Department, Years 1-5)".
- The Committee agreed that the Town Planner should coordinate review of proposed land uses in Zone II Districts.
- The Committee agreed that Dudley should work with Oxford, as well as Webster, Southbridge, and/or Thompson Water Departments to provide emergency back-up water supply connections.
- The Committee agreed to add a new task to Objective 1.3: "Protect land surrounding Sylvestri Pond."
- Sandy Peterson suggested adding a new task: "Remove transmission lines and designate that area as a conservation area."
- The Committee agreed that the Open Space Committee should be charged with defining a policy and process for working with landowners when the Town has the right of first refusal on Chapter 61 lands.
- The Committee agreed that the Town Planner and Open Space Committee should be charged with creating a methodology for rating existing or potential conservation land, and that the task should be completed in Year 1.
- The Committee agreed that the Board of Selectmen, Town Planner and Open Space Committee should be charged with working to make sure that the most biologically

important municipal lands are protected and managed appropriately. This task should be completed during years 2-5.

- The Committee agreed to add a new task to Objective 2.4: "Consider designating funds for the sale of tax-title land to acquire and maintain conservation and recreation land (Open Space Committee, Year 3)."
- Leo Biron explained that the Parks and Recreation Committee received grant funds to create a trail map and brochure for Ardlock Acres. He said that creation of these items is in process.
- The Committee agreed to add a new task to Objective 2.4: "Improve signage at recreation areas (Parks and Recreation Committee, Year 1)."
- The Committee agreed to strike the word "signage" from Objective 3.2, Task 2.
- The Committee agreed that the Open Space Committee should be charged with assisting ponds associations with addressing public access concerns and conducting study of a potential conservation/recreation complex.
- The Committee agreed to add the following tasks to Objective 3.2: "Expand recreational programming by providing year-round activities for youth and adults (Council on Aging, Parks and Recreation Committee)"
"Make neighborhoods more pedestrian-friendly through construction of sidewalks (Highway Department, Planning Board, Year 1-5)."
- The Committee agreed to add the following task to Objective 4.1: "Establish a Dudley Pride beautification committee (Board of Selectmen, Year 1)."
- The Committee agreed to remove the following task from Objective 4.2: "Seek state and federal assistance to protect scenic views (Planning Board, Year 5)."
- The Committee agreed to add the following task to Objective 5.1: "Incorporate the outdoor classroom concept into the public school science curriculum (School Department, Years 1-5)."

Ed Himlan explained that he will incorporate the aforementioned changes and send the draft plan for everyone to review and discuss at the next meeting. The next Committee meeting was scheduled for 7:00 pm on Thursday, November 6th in the Norman Rockwell Room.

Minutes of the 11/6/03 Community Development Plan Committee Meeting

Members present: Leo Biron, Parks and Recreation Committee; Laurie Connors, Town Planner; Ed Himlan, Massachusetts Watershed Coalition; Guy Horne, Planning Board; Chet Kulisa, Resident; Sandy Peterson, Resident; and Martha Tierney, Resident.

The following handouts were available at the meeting:

- Meeting Agenda
- Minutes of the October 2, 2003 Meeting
- Town of Dudley Open Space and Recreation Plan: Final Draft
- Maps: Figures 1-10
- Appendix F: Land Use Suitability Criteria
- Miscellaneous Inserts: SWAP Report and Wastewater Management Plan Information

Ed Himlan sent the Final Draft to everyone prior to the meeting.

Ed Himlan discussed the timeline for completion of the Plan. He then reviewed the Draft Plan. Mr. Himlan pointed out several changes that he had made. The Committee agreed to the following additional changes:

Amend page 6, paragraph 2 to include the following underlined text: The historic Town center is located on Center Road and most of Dudley's commercial activity occurs along Routes 12 and 197.

Amend page 6, paragraph 2 to include the following underlined text: Outlying villages are known as West Dudley, Sunnyside, Chaseville, Jericho, and Quinebaug Village.

Amend page 7, paragraph 5 to include the following underlined text: The town is looking at establishing a mixed-use area, using the former mills, which will combine residential, commercial, and non-profit uses.

Amend page 8, paragraph 2 to include the following underlined text: Dudley's rural character, quality schools and low tax rate have made the Town a desirable place to live.

Amend page 9, paragraph 4 to include the following underlined text: Based on MISER forecasts for a major increase in the 45 to 64 year old age group, the Town may want to place special attention on creating recreational facilities to serve this age group (conservation areas and multi-purpose trails).

Amend page 11, paragraph 3 to reflect the zoning district abbreviations depicted in the Zoning Regulations. Also, include mention of the new RES-87 District.

Amend page 12 to strike the first sentence: Many of the industrial areas are being developed for houses because residential uses are permitted by right in the Town's industrial districts.

Change spelling of Pierpont Pond throughout text.

Amend page 18, paragraph 2 so that it includes mention of hand pulling as a way of controlling weeds.

The Committee discussed the fact that the Quinebaug River aquifer may be the Town's best hope for a future public drinking supply.

Amend page 24, paragraph 3 so that it specifies that the former Grand Trunk rail line is "inactive", not "abandoned". Strike the following underlined words: The pond on Potash Brook below West Main Street is clear but appears to be lifeless, which may be due to septic systems and leachate from the landfill.

Laurie Connors noted that the recommendation on page 25 calling for stormwater management plans for proposed subdivisions was accomplished in spring 2003.

Laurie Connors asked if the assessment of the flows and pollutant levels in the Quinebaug River mentioned on page 26 has been conducted. Ed Himlan responded that it has and that he will update the plan to reflect that fact.

Amend page 27, Table 1. Chet Kulisa stated that the Audubon Society owns 130 acres of land in Dudley.

Amend page 39, paragraph 1. The Master Plan was completed in 2000, not 2002. Strike the following sentence: The goals presented below will be introduced in the Community Vision section of the OS & R Plan.

Laurie Connors noted that the Zoning Map is incorrect. She said that she would supply the Massachusetts Watershed Coalition with an up-to-date version of the map.

Ed Himlan explained that he will incorporate these changes and forward the draft plan to the Committee in approximately two weeks.

Laurie Connors explained that upon receipt of the draft plan, she will verify that all agreed-upon changes have been made and forward copies of the draft to the Planning Board, Board of Selectmen, Conservation Commission, Parks and Recreation Committee, and CMRPC for their review and comment. She will ensure that their suggested changes are incorporated into the final draft, as well as the ADA requirements. She will then submit the final draft to the Massachusetts Division of Conservation Services for their review and approval. Simultaneously, John Hume will incorporate excerpts of the Open Space and Recreation Plan into the Community Development Plan. That Plan will be sent to the Community Development Plan Committee as well as all municipal boards, committees and departments for their review and approval.

It is likely that the Committee will reconvene in January or February to review the draft Community Development Plan and discuss implementation of the plan. Laurie Connors will contact Committee members with the next meeting time, date and location.

Appendix B: Soils Descriptions

A soil association is made up of two or more geographically associated soils that are shown as one unit on general soils maps. Most map units include small scattered areas of soils other than those for which the map unit is named.

Paxton-Woodbridge-Ridgebury Association

PAXTON SERIES consist of very deep, well drained soils on glacial till uplands. Slopes may be gentle or steep, ranging from three to 35 percent, with surface stones common. Soils have formed in firm and very firm glacial till derived from schist, gneiss, and granite. Paxton soils have friable fine sandy loam in both the surface and subsoil layers with moderate permeability, water is removed readily, but not rapidly. Substratum is a firm, dense fine sandy loam with slow to very slow permeability. In many areas of Paxton soils, a firm layer is found at about 24 inches, which impedes vertical movement of water. A seasonal high water table is normally found at a depth of 1.5 to 2.5 feet in the spring and fall. Major limitations are related to wetness, stoniness, and erosion. **Hydrologic group B*

WOODBIDGE SERIES consist of very deep, moderately well drained soil found on the top and sides of drumlins. They formed in firm compacted glacial till derived from gneiss, schist, or granite. Slopes are gentle to moderate, ranging from zero to 15 percent, with surface stones common. Woodbridge soils have fine sandy loam to sandy loam surface soil with moderate permeability and fine sandy loam, coarse sandy loam to loamy sand subsoil, with moderate permeability. Water is removed somewhat slowly during some periods. Very firm loam substratum is found below 22 inches, with slow to very slow permeability. In many areas of Woodbridge soils, this firm layer is found at about 22 inches, which impedes vertical movement of water. A seasonal high water table is normally found at a depth of 1.5 to 2.5 feet in the spring and fall. Major limitations are related to wetness and stoniness. **Hydrologic group B*

RIDGEBURY SERIES consist of nearly level to moderately steep, very deep, poorly drained and somewhat poorly drained, fine sandy loams. They formed on glacial till uplands derived from schist, gneiss, or granite, with slopes ranging from zero to eight percent. Ridgebury soils have varying amounts of gravel, cobbles, and stones in a friable fine sandy loam surface layer, surface stones are common; subsoil is fine sandy loam. Bedrock depth is greater than 60 inches. These soils are have moderately to moderately rapid permeability in the surface and subsurface soil, and slow or very slow permeability in the substratum. Water is removed so slowly that the soil is saturated or remains wet for long periods. In many areas of Ridgebury soils, a firm layer is found at about 22 inches, which impedes vertical movement of water. A seasonal high water table is normally found at a depth of 0.0 to 0.5 feet in the spring and fall. Major limitations are related to wetness and stoniness. **Hydrologic group C*

Canton-Montauk-Scituate Association

CANTON SERIES consist of very steep, very deep, well drained soils on glaciated uplands. They formed in friable glacial till, from gneiss and granite, with slopes ranging from three to 35 percent. Canton soils have contrasting texture, with friable or loose gravelly to very gravelly sandy loam to loamy coarse sand surface soil and friable gravelly fine sandy loam subsoil with moderately rapid permeability. Major limitations are related to slope, stoniness, and erosion.

**Hydrologic group A*

MONTAUK SERIES consist of very steep, very deep, well drained soils on glaciated uplands. They formed in firm glacial till, from granitic rock, with slopes ranging from three to 35 percent. Montauk soils have friable or loose, gravelly and very gravelly sandy loam to loamy coarse sand surface soil and subsoil with rapid permeability. Major limitations are related to seasonal wetness, slope, stoniness, and erosion. **Hydrologic group A*

SCITUATE SERIES consist of very deep, moderately well drained soils on glacial till uplands. They formed in friable glacial till underlain by firm glacial till from granite and gneiss. Slopes are moderate, ranging from zero to eight percent. Scituate soils have friable, fine sandy loam to sandy loam to loam surface soil and friable, gravelly, sandy loam to loamy sand subsoil with moderate permeability. Major limitations are related to seasonal wetness and erosion.

**Hydrologic group B*

Merrimac-Hinckley-Windsor Association

MERRIMAC SERIES consist of nearly level to steep, deep, somewhat excessively drained soils on glacial outwash plains, terraces, and kames. They formed in water-sorted sandy glacial materials. Merrimac soils have friable fine sandy loam and sandy loam surface soil and subsoil with moderate permeability, over a loose stratified sand and gravel substratum at 18 to 30 inches with rapid permeability. Major limitations are related to slope. **Hydrologic group A*

HINKLEY SERIES consist of nearly level to very steep, deep, excessively drained soils on glacial outwash plains, terraces, kames, and eskers. They formed in gravelly and cobbly coarse textured glacial outwash, from granite, gneiss, and schist. Hinckley soils have friable or loose, gravelly and very gravelly sandy loam to loamy coarse sand surface soil and subsoil with rapid permeability. Major limitations are related to slope and droughtiness. **Hydrologic group A*

WINDSOR SERIES consist of very deep, excessively drained soils on glacial terraces and outwash plains. They formed in water-sorted sandy glacial materials, slopes range from zero to 35 percent. Merrimac soils have friable fine sandy loam and sandy loam surface soil and subsoil with moderate permeability, over a loose stratified sand and gravel substratum at 18 to 30 inches with rapid permeability. Major limitations are related to erosion, slope, and droughtiness.

**Hydrologic group A*

Freetown-Swansea-Saco Association

FREETOWN SERIES consist of nearly level, very deep, very poorly drained, organic soils. They are found on glacial till and outwash plains. Freetown soils have at least 51 inches of organic matter. Water drains so slowly through this soil type that free water remains at or near the surface, causing ponding to occur. Due to the amount of water held in the soil for extended periods of time, large amount of sapric material are found. Depth to bedrock is greater than 60 inches. Major limitations are related to wetness, ponding, and excess humus. **Hydrologic group D*

SWANSEA SERIES consist of nearly level, very deep, very poorly drained, organic soils found on glacial till and outwash plains. These muck soils formed in 16 to 51 inches of highly decomposed organic matter, underlain by sandy material. Swansea surface soils are dominantly sapric material and have woody fragments, which comprise zero to 25 percent, sphagnum moss may be found on the surface; the subsurface sandy layer consists of mainly sapric material and contains zero to 40 percent gravel. The thickness of organic material ranges from 16 to 51 inches. Major limitations are related to wetness. **Hydrologic group D*

SACO SERIES consist of nearly level, very deep, very poorly drained soils found on floodplains. They formed in recently deposited floodplain alluvium primarily from schist or gneiss. Saco soils are friable and consist of mucky silt loam to silt loam to very fine sandy loam to mucky very fine sandy loam with low permeability, over very fine sandy loams with low permeability. Major limitations are related to wetness. **Hydrologic group D*

** Hydrologic Soil Groups* – Refers to soils grouped according to their runoff-producing characteristics. The chief consideration is the inherent capacity of soil bare of vegetation to permit infiltration. The slope and the kind of plant cover are not considered, but are separate factors in prediction runoff. Soils are assigned to four groups. In group A are soils having a high infiltration rate when thoroughly wet and having a low runoff potential. They are mainly deep, well drained, and sandy or gravelly. In group D, at the other extreme, are soils having a very slow infiltration rate and thus a high runoff potential. They have a claypan or clay layer at or near the surface, have a permanent high water table, or are shallow over nearly impervious bedrock or other material. A soil is assigned to two hydrologic groups if part of the acreage is artificially drained and part is undrained.

Appendix C: Land Ownership Information

Dudley has nearly 1,900 acres of permanently protected land and more than 3,400 additional acres with temporary or limited protection (see definitions in this appendix). Managed by many public and private owners, these areas provide important benefits for the Town. *(A key for codes used in the summary tables is provided at the end of this section.)*

Town of Dudley Properties

The Assessors' list has 72 Town-owned properties and shows:

- 2 parcels adjacent to Gore Pond, managed by the Town's Conservation Commission;
- 11 parcels clustered around the Town center, including the Library, which are used for recreation, public works, schools, Town buildings, cemeteries and other municipal purposes;
- 11 parcels off West Main Street, including the Town Fire Station and Water Department main pumping station;
- 9 parcels off Schofield Avenue and New Boston Road, including multiple Town wells and pumping stations;
- 8 parcels off Indian Road, including Ardlock Acres;
- 3 parcels near the Intermediate School, between Oxford Avenue and School Street;
- 1 parcel, the Village Cemetery, off Dudley–Oxford Road;
- 1 parcel off Mason Road, which includes the Town Municipal Corporation and Service Shop;
- 2 parcels off Carroll Road, in use by the Dudley Sewer Department;
- 2 parcels off Dresser Hill Road, which includes the Town's water tower;
- 3 parcels owned by the Dudley Housing Authority, including one elder housing facility;
- 19 small parcels found in various areas of Dudley.

Town lands of special interest for conservation and recreation are summarized below.

<u>Name or use</u>	<u>Managing agency</u>	<u>Est. Acres</u>	<u>Current Uses</u>	<u>Recreation Potential</u>	<u>Condition</u>	<u>Public Access</u>	<u>Zoning</u>	<u>Status</u>
Ardlock Acres	Conservation Commission	92	9, 13, 18, 19	Medium	Good	Yes	R	Protected
Baker Pond Rd		39.7		Medium			R	Unprotected
Dudley Elementary School	School Dept.	4.4	13, 14, 15, 17	High	Good	Yes	R	Limited Protection
Dudley Middle School (Gr. 5-8)	School Dept.	15.6	13, 14, 15, 17	High	Good	Yes	R, B	Limited Protection
Shepherd Hill Regional High School (Gr. 9-12)	School Dept.	88.9	13, 14, 15, 17	High	Good	Yes	R	Limited Protection
Corbin Cemetery		6.7	6	None	Good	Yes	R	Protected
Other Cemeteries		1.2	6	None	Good	Yes	R	Unprotected
Gore Pond	Conservation Commission	18.7	9, 13, 19	High	Good	Yes	R	Protected
Low Pond	Proposed Conservation Commission	3.8	Pro-posed 4,9,13	Medium	Good	Currently proposed	R, I	Unprotected
Hayden Pond Rd	Conservation Commission	8.7	3, 9, 13, 19	High	Good	Yes	Consv.	Protected
Indian Rd	Conservation Commission & Water Dept.	19.8		Medium	Good	Yes	R	Unprotected
New Boston Rd	Water Dept.	51.1	8, 9, 13, 18	Low	Good	Yes	R	Unprotected

New Boston Rd	Water Dept.	25.5	8, 9, 13, 18	Low	Good	Yes	R	Protected
Pierpont Rd	Conservation Commission	4.0	3, 8, 9, 13	High	Good	Yes	R	Protected
Schofield Ave Pump #3	Water Dept.	10.5	18	None	Good	Yes	I	Unprotected
Stevens Park	Parks & Recreation	1.2	14, 15	High	Good	Yes	R	Protected
Oxford Ave		54.5		Medium	Good	Yes	R	Unprotected
Pumping Station	Water Dept.	5.1	18	None	Good	Yes	I	Limited Protection
Town Beach	Parks & Recreation	29.6	14, 16,	High	Good	Yes	R, C	Limited Protection

Other Public Conservation and Recreation Properties

No state or federal lands account for the permanently protected lands in Town.

Private Conservation and Recreation Properties

Open spaces owned by nonprofit organizations and private individuals complement the public conservation and recreation lands. Community access is limited by the owners, and most of these private properties are not permanently protected. However, private stewardship helps to preserve the forests, streams, fields, habitats and scenic qualities that contribute greatly to the rural character highly valued by Town residents. The tables below summarize these important private conservation and recreation areas.

Private Nonprofit Lands:

Name or use	Managing agency	Est. acres	Current uses	Recreation potential	Public access	Zoning	Status
Mass Audubon Lands	Massachusetts Audubon Society	94	9, 20	High	Yes	R, Conserv.	Protected
Dudley Soccer Association Fields	Dudley Soccer Association	8	14, 17	High	Yes	R	Unprotected
Dudley Sportsmans Club, Inc.	Board of Directors	34	11, 7	Medium	Yes	R	Unprotected

Private Agriculture & Forest Lands:

Name or use	Manager	Est. acres	Current uses*	Public access	Zoning*	Status
Agric. Preservation Restriction (APR)	Multiple property owners	1,661	1 (with restricted development uses)	Owner discretion	R	Protected
Chapter 61	Multiple property owners	211	8	Owner discretion	R	Unprotected
Chapter 61A	Multiple property owners	3,163	1, 8	Owner discretion	R	Unprotected
Chapter 61B	Multiple property owners	37	Conservation/recreation	Owner discretion	R	Unprotected

Key for “current uses” summarized by tables above:

<u>Code</u>	<u>Use</u>	
1	Agriculture	
2	ATV/Snowmobiling	
3	Biking	<u>Zoning code:</u>
4	Boating/Canoeing	R = Residential
5	Camping	Consv. = Conservation land
6	Cemetary	I = Industrial
7	Fishing	C = Commercial
8	Forestry	B = Business
9	Hiking	
10	Horseback Riding	
11	Hunting	
12	Ice Skating	
13	Nature Study	
14	Picnicking	
15	Playground	
16	Swimming	
17	Team Sports/active recreation	
18	Watershed Protection	
19	X-C Skiing	
20	Other	

Lands Considered Protected or Unprotected for the Purposes of Open Space & Recreation Plans

Protected

Publicly Owned

- Land owned by town's Conservation Commission or Water Department
- Land owned by a state Conservation Agency (thus covered under Article 97 of the state constitution)
- Land owned by a Non-profit Land Trust
- Properties for which the town received state or federal funds for purchase or improvement

Privately Owned

- Land on which there is a Conservation Restriction in perpetuity
- Land on which an Agricultural Preservation Restriction has been placed
- Land on which DEP (Dept. of Environmental Protection) has placed a conservation restriction as part of the Wetlands Conservancy Program

Definitions:

Article 97 of the Constitution of the Commonwealth of Massachusetts. Allows land to be purchased for environmental or conservation purposes.

Non-profit Land Trust is an organization that assists landowners preserve land by a variety of means. A Non-profit Land Trust may hold a conservation restriction on private land.

Conservation Restriction (or Easement) is a legal agreement between a landowner and a conservation organization (e.g. Non-profit Land Trust) that permanently restricts the type of development on the land to protect its environmental or scenic features. The land remains in private ownership and the CR, which is approved by the Commonwealth, is attached to the deed.

Agricultural Preservation Restriction in Mass. is a special type of CR issued to working farms that meet the Dept. of Food and Agriculture's requirements. It prohibits non-agricultural development or use of the property to preserve it as productive farmland.

Not Protected

Publicly Owned

- Land owned by local school department or local agencies (whose purpose is not conservation)
- Land owned by Department of Defense, Dept. of Corrections, or other state and federal lands whose purpose is not conservation

Privately Owned

- Agricultural lands, including those covered under MGL Chapter 61A
- Forest lands, including those covered under MGL Chapter 61
- Private recreation lands, including those covered under MGL Chapter 61B (golf courses, fishing and hunting clubs, country clubs, marinas, etc.)
- Agricultural Land Incentive Areas
- Institutional holdings, such as schools, colleges, religious organizations
- Corporate holdings, landfills, quarries
- Lands with Deed restrictions, APRs, and other conservation measures which are not in perpetuity or which have other conditions

Definitions:

Chapter 61: Forest Land

Chapter 61A: Agricultural and Horticultural Land

Chapter 61B: Recreational Land

These are voluntary, state programs that allow a landowner to enroll eligible lands and receive a substantial property tax savings. There are specific criteria for eligibility. Penalties are assessed if the land loses eligibility or if the land is withdrawn from the program, but not if land is sold to a new owner who will continue the program. If a proposed development or sale would remove the land from the program, the town or its designee (non-profit land trust or conservation organization) has first right of refusal option to match a buyer's offer.

Other Deed Restrictions include conservation restriction and other easements that are not in perpetuity or that have other limiting conditions.

The above definitions were borrowed from summary information prepared by the Barre Open Space Committee, 2/22/2001

Appendix D: ADA 504 Report

Town of Dudley Open Space & Recreation Plan SECTION 504 SELF-EVALUATION

To be prepared.

Appendix E: Riparian Corridor Information

River and Stream Corridors: Connecting Water, Wildlife, People and Town Heritage

Riparian corridors are cornerstones of ecological health and community livability. The most important environmental concerns are clustered along river and stream corridors. There is widespread public appreciation and support for riparian conservation - local waterways and adjacent lands are among the natural resources that people value most in a community.

Environmental Assessment of Riparian Corridor

1. *Water Supplies:*
 - surface water supplies - waterways are sources of all existing/potential supplies
 - groundwater - aquifers connect with waterways, and highest yield sources tend to be located in riparian corridors (upland recharge areas also need protection)
2. *Biodiversity:*
 - aquatic species depend on productivity, integrity & health of riparian ecosystem
 - riparian areas including associated wetlands provide richest habitats for wildlife & birds, as well as key migration routes that connect with large conservation areas
 - most rare/endangered species habitats are closely linked with riparian corridors
3. *Historic Sites:*
 - mill towns were built around water, farm towns avoided floodplains & riparian areas
 - many native American sites are located beside waterways
 - rivers were early transportation routes for settlers & location of historic events/sites
4. *Scenic & Cultural Resources:*
 - water is especially scenic and attractive to most people
 - museums, schools, colleges, parks, restaurants, etc. often use water as focal point for facility design
5. *Recreation & Tourism:*
 - waterways offer fishing, boating and swimming
 - adjacent riverfront areas provide river access & opportunities for walking, hiking, bird watching and other popular activities
 - state/local parks often feature water related activities as these are in greatest demand
 - access to water is central to wide array of tourist attractions
6. *Community Development:*
 - Wetlands/Rivers Act, Title V, floodplain protection and other regulations pose criteria that tend to make riverfront development difficult (& confrontational)
 - local concerns relative to flooding, water supplies, pollution, etc. favor placement of housing, businesses & roads away from riparian areas
 - towns can apply variety of tools such as cluster, TDR & funds from Community Preservation Act to offer landowner & developer incentives for riparian conservation

7. *Constituency:*

- there is broad-based, active network of local advocates for riparian conservation, including diverse interests such as watershed groups, land trusts & civic groups
- local landowners & residents greatly appreciate local waterways
- town officials understand need and support efforts to preserve waterways for flood prevention, water protection, recreation, wildlife & other local benefits

Cities and towns across Massachusetts have taken positive steps to enhance waterways for recreation opportunities and tourism attractions. There is federal financial and technical assistance available for communities, ranging from American Heritage Rivers Program to USDA riparian buffers initiative to National Park Service Rivers & Trails Program to FEMA.

Appendix F: Land Use Suitability

The following land use suitability criteria identify the lands that are suitable for development, the lands that are not suitable for development, and the lands that are suitable for development with certain constraints. These areas are shown on the Land Use Suitability Map (Figure 10).

1. Identify areas with absolute environmental or open space constraints.

These lands are not suitable for future residential, commercial or industrial uses:

- ♦ Wetlands
- ♦ Land with Slopes Greater than 25%
- ♦ Rivers, Lakes, and other Water Bodies
- ♦ Permanently Protected Open Space
- ♦ Public Water Supplies and Zone I Recharge Areas
- ♦ Certified Vernal Pools

2. Identify areas with potential or partial environmental constraints.

These lands are not absolutely constrained from development, but may be undesirable for future development due to potential environmental constraints:

- ♦ 100 Year Floodplain
- ♦ 100 Foot Buffer Area around Wetlands
- ♦ 200 Foot Resource Protection Area Surrounding Rivers and all Perennial Streams
- ♦ Land with Slopes between 15 to 25%
- ♦ Interim Wellhead Protection Zones
- ♦ Aquifer Protection District (Zone II)
- ♦ Natural Heritage and Endangered Species Program Priority Habitat and Estimated Habitat areas

3. Identify areas with built or developed land uses.

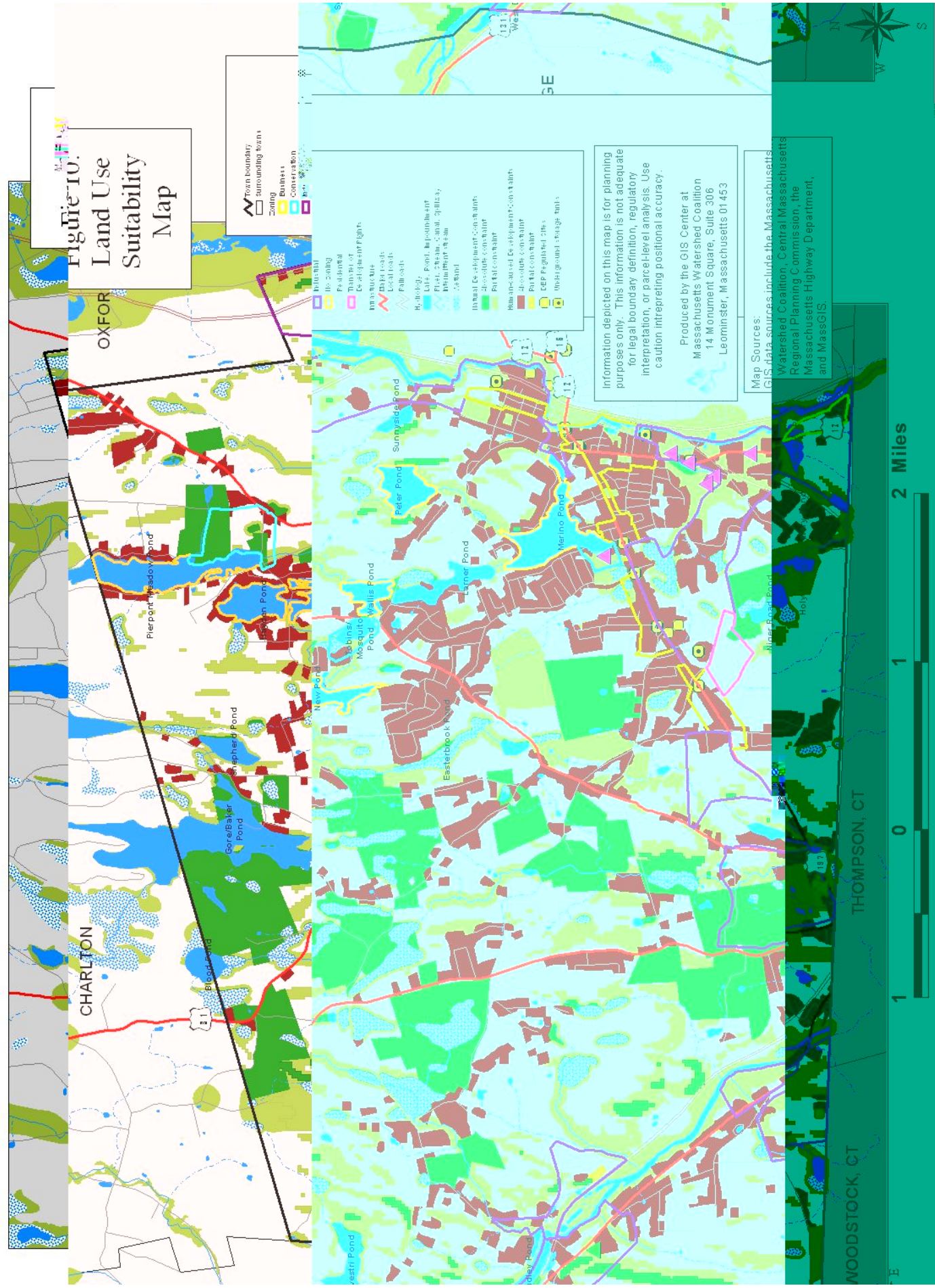
These lands currently have residential buildings, commercial buildings, landfills and developed land uses. Some of these land uses are absolute constraints, others are partial constraints.

Absolute constraints:

- ♦ Transmission lines
- ♦ Developed Land (except mining)
- ♦ Solid Waste Areas (landfills)

Potential constraints:

- ♦ Mining Lands
- ♦ Brownfield Sites



Appendix G: Review Letters

The Open Space and Recreation Plan will be distributed to Town boards and the Central Massachusetts Regional Planning Commission. This appendix will provide copies of the letters received from: (list of the boards that provided review letters).

Dudley Community Development Plan

Section Three – Housing Element

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1. INTRODUCTION

The Town of Dudley Community Development Plan is funded through Executive Order 418, a statewide initiative aimed at increasing housing opportunities for a broad range of income levels by helping towns proactively plan to meet housing, economic development, open space protection, and transportation needs.

The Housing Element of the Dudley Community Development Plan first assesses and analyzes housing related trends including population and housing unit growth, average household size, population by age group, age of housing stock, housing occupancy, and type of households. A housing demand assessment and needs analysis documents the demand for housing in Dudley, the housing needs of local residents and what is actually available (and affordable).

Findings from the housing assessment and analysis set Dudley's housing goals and objectives as well as recommendations designed to fulfill them over the next 10 years and beyond. Based upon this information, coupled with open space and natural resources mapping, land use suitability for future development in the Town of Dudley was mapped and short-term and long-term numerical goals concerning housing unit production were determined.

2. HOUSING ASSESSMENT AND ANALYSIS

A. Population Trends

The 2000 Census counted 10,036 residents in Dudley, an increase of 496 persons from the 1990 Census count of 9,540 residents. With a total landmass that consists of 21.05 square miles,

Table 2
Population Growth and Percent Change – Comparable Communities

Year	Charlton	Dudley	Leicester	Oxford	Spencer	Uxbridge	Webster
1980	6,719	8,717	9,446	11,680	10,774	8,374	14,480
1990	9,576 (42%)	9,540 (9.4%)	10,191 (7.9%)	12,588 (7.8%)	11,645 (8.0%)	10,415 (24.4%)	16,196 (11.8%)
2000	11,263 (17.6%)	10,036 (5.2%)	10,471 (2.7%)	13,352 (6.1%)	11,691 (0.4%)	11,156 (7.1%)	16,415 (1.3%)
2010	13,126 (16.5%)	10,741 (7.0%)	11,639 (11.2%)	14,473 (8.4%)	13,264 (13.5%)	13,250 (18.8%)	17,251 (5.1%)

Sources: US Census Bureau. Forecast for 2010 provided by CMRPC.

B. Housing Unit Growth

Table 3 shows how the housing stock has grown over the years and allows for a comparison against the growth in population. Please note that table 3 and 4 refer only to year-round occupied housing units.

Table 3
Housing Unit Growth in Dudley

Year	# of Occupied Housing Units	Numerical Change	% Change
1980	2,929	----	----
1990	3,387	458	15.6%
2000	3,737	350	10.3%

Source: US Census

Table 4
Housing Unit Growth – Comparable Communities

Year	Charlton	Dudley	Leicester	Oxford	Spencer	Uxbridge	Webster
1980	2,107	2,929	2,961	3,813	3,708	2,900	5,626
1990	3,147 (49.3%)	3,387 (15.6%)	3,458 (16.8%)	4,492 (17.8%)	4,321 (16.5%)	3,773 (30.1%)	6,529 (16.1%)
2000	3,788 (20.4%)	3,737 (10.3%)	3,683 (6.5%)	5,058 (12.6%)	4,583 (6.1%)	3,988 (5.7%)	6,905 (5.8%)

Source: US Census

Taken together, Tables 2 and 4 indicate that housing stock of Dudley, Charlton, Oxford, and Webster are growing at a faster rate than their populations. Between 1980 and 1990 the region experienced significant growth that continued into the year 2000 for Charlton. It is anticipated that housing unit growth will continue over the next decade. In fact, according to MISER,

Dudley issued a total of eighty (80) building permits in the year 2002 (See Table 5), verifying that the Town continues to grow along with other towns in the region. During the same year, 101 building permits were issued in Charlton, 37 in Leicester, 29 in Oxford, 34 in Spencer, 108 in Uxbridge, and 86 in Webster.

Table 5
Annual Number of Housing Units Authorized by Building Permits: 1998-2002

Year	Charlton	Dudley	Leicester	Oxford	Spencer	Uxbridge	Webster
1998	92	33	49	55	33	153	34
1999	79	63	41	51	45	138	41
2000	85	79	44	55	35	106	43
2001	88	68	41	36	37	73	61
2002	101	80	37	29	34	108	86

Source: MISER

Most housing construction in Dudley is not in subdivisions, but on individual house lots along existing public roads. For example, in the year 2002, out of more than 22 new house lots approved by the Planning Board, only 4 were in subdivisions. Development of individual house lots requires only the submittal of an “Approval Not Required” (ANR) plan to the Planning Board. The plan mu

C. Average Household Size

A comparison of Tables 1 and 3 clearly indicates that Dudley's housing stock has and continues to grow at a faster rate than its population. This is not surprising when one considers the national trend towards smaller household sizes. Couples are having fewer children today and many households are the single parent variety. Dudley's US Census data confirms this trend. In 1980, the typical Dudley household contained 2.8 people. By 1990, the persons per household figure had declined to 2.64 and by 2000, to 2.57 persons per household.

Another factor contributing to smaller household sizes is "the graying of America", that is, our nation's elderly population is expanding. The Census data clearly demonstrates that this national trend is taking place in Dudley. In 1970, the median age of Dudley's population was 27.3 years of age and, in 1980 it edged up to 30.1 years of age. By 1990, the median age had increased to 33.1 years of age, and the recent year 2000 Census show the median age now stands at 35.9 years of age.

Table 7 displays change in age of the town's population from 1990 to 2000. The number of very young children (under 5 years) declined by 2.8% during the decade, while children between 5 and 19 years of age showed an increase of 153 persons or 7.2%. With a smaller number of children under 5 entering school, it is likely that the Town's school population will decline slightly over the next five years, unless there is an unexpected increase in new housing growth, or a turnover in the existing housing stock to families with school-aged children.

The data also reveals that a large population increase occurred among those aged 35-54 (656 additional persons or a 27.3% increase). This indicates that buyers of homes must wait to enter their high wage-earning years before being able to afford a home. Although there are fewer people in the 20-34 year age group (-14.25%), one may also infer that it has become more difficult for young adults to afford to live in Dudley and that there are insufficient affordable rental units.

Older citizens (55 and over) witnessed population changes. Residents between the ages of 55-64 decreased slightly by 2.38% while those 65-74 decreased by 14.6%. This latter segment represents Depression Era births, when the birth rate was low due to severe economic factors. As these residents move into their more elder years, there is unlikely to be a significant increase in the 75 and over population. However, during the last decade, those 75 and over experienced the highest rate of growth of any age category (170 persons), for a sharp increase of 36.32%. This may be partly explained by advances in health care, as residents are now living longer lives.

Table 7
Population by Age Group

Year	Under 5	5 – 19	20 – 34	35 – 54	55 – 64	65 – 74	75 +
1990	605	2,113	2,358	2,400	840	756	468
2000	588	2,266	2,022	3,056	820	646	638
Change	(17)	153	(336)	656	(20)	(110)	170
% Change	-2.8%	7.24%	-14.25%	27.33%	-2.38%	-14.6%	36.32%

Source: 1990 and 2000 U.S. Census

D. Housing Unit Inventory

Tables 8, 9, and 10 provide information on all housing units in Dudley, including vacant houses and seasonal residences. Tables 8 and 9 indicate that 67.8% of Dudley's housing stock is of the detached single-family home variety, and 30.8% is of the multi-family variety. As shown in Table 9, Webster has a significantly higher percentage of multi-family units than the other comparable communities, followed by Spencer and Dudley. When one considers that the majority of multi-family units are rental properties, the facts suggest that Dudley has an average amount in those regards in comparison to similar communities. However, Dudley has fewer attached single-family homes (1.2%) with the exception of Spencer (1.1%).

Table 8
Type of Housing Units - Year 2000

Type of Unit	Number of Units	Percent
One Unit Detached	2,650	67.8%
One Unit Attached	47	1.2%
Two Units	448	11.5%
Three or Four Units	513	13.1%
Five or More Units	243	6.2%
Mobile Homes	9	0.2%
TOTAL	3,910	100%

Source: 2000 US Census

Table 9
Type of Housing Units and Percentage of Single Family Homes
in Comparable Communities - Year 2000

Town	One Unit Detached	One Unit Attached	Two Units	3-4 Units	5+ Units	Mobile Homes
Charlton	3,337 (83.3%)	192 (4.8%)	188	286	167	30
Dudley	2,650 (67.8%)	47 (1.2%)	448	513	243	9
Leicester	2,797 (73.1%)	104 (2.7%)	259	223	436	7
Oxford	3,580 (72.7%)	222 (4.2%)	479	395	524	28
Spencer	2,893 (58.6%)	52 (1.1%)	675	734	566	18
Uxbridge	2,782 (78.3%)	214 (5.3%)	501	285	294	0
Webster	3,285 (43.5%)	178 (2.4%)	1,184	1,537	1,291	79

Source: 2000 US Census.

Note: One Unit Attached is defined by the US Census bureau as a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures.

E. Age and Condition of Housing Stock

Table 10 illustrates that most of Dudley's housing stock is of relatively new construction; 23.8% or 932 units of the housing stock was built prior to World War II. Table 11 helps to illustrate that this is somewhat low when compared to similar communities within the region and well below the state average of 34.5%. A newer housing stock is much more likely to be in better structural condition. However, even though Dudley has a relatively low percentage of pre-1940 units, many of those residential dwellings probably would not meet the State's current building code or pass muster with the Town's Building Inspector.

Table 10
Age of Dudley Housing Stock

Year Structure Built	Number of Units	% of Housing Stock
1990-2000	526	13.5%
1980-1989	487	12.5%
1970-1979	714	14.5%
1960-1969	268	10.5%
1940-1959	617	25.2%
1939 or earlier	932	23.8%
TOTAL	4,008	100%

Source: US Census

Data maintained by the Town strongly indicates that there are a number of dilapidated residential dwellings in Dudley that could use repairs. In the year 1998, the Town rated all housing units based on their overall condition both structurally and aesthetically on a scale of “1% Good” (poorest condition) to “100% Good” (best condition). Thirty-three (33) properties in Dudley received a score of less than “50% Good”. Furthermore, an additional 42 properties in Dudley are rated from “50% Good” to “60% Good”. A number of residential properties with low scores are older and of the multi-family variety. Also, between the years 1998 and 2002, twenty-two (22) complaints were filed with the Board of Health concerning dilapidated housing conditions ranging from electrical, plumbing, heating, roof, and chimney problems to broken windows and peeling paint.

Table 11
Age of Housing Stock (1939 or Earlier)
In Comparable Communities - Year 2000

Town	Number of Pre-1940 Units	% of Housing Stock
Charlton	564	14.1%
<i>Dudley</i>	932	23.8%
Leicester	962	25.1%
Oxford	1,145	21.9%
Spencer	1,663	33.7%
Uxbridge	1,058	25.9%
Webster	2,793	37.0%
Massachusetts	905,698	34.5%

Source: 2000 US Census

F. Housing Occupancy

In 1990, there were a total of 2,343 owner occupied housing units and that figure increased to 2,655 in the year 2000. During the same time span rental units increased from 1,044 units to 1,082. Table 12 indicates that more than 71% of Dudley’s housing stock is currently owner-occupied. In terms of the percent of occupied housing units versus the percentage of vacant units

over the last decade, the 1990 Census indicated a .72% homeowner vacancy rate and a 6.1% vacancy rate for rental property. The 2000 Census reported that the homeowner vacancy rate and rental vacancy rate decreased to .5% and 4.5% respectively indicating a more competitive housing market.

Table 12
Type of Occupancy (Owner/Renter - 2000)

Type of Occupancy	Number of Units	Percentage
Owner Occupied Housing	2,655	71.0%
Renter Occupied Housing	1,082	29.0%

Source: 2000 US Census

Generally, more rural communities tend to have substantially fewer rental units than urbanized areas. Table 13 indicates that Dudley has a moderate percentage of rental units in comparison to similar communities: less than Webster and Spencer, but more than Uxbridge, Oxford, Leicester, and Charlton.

Table 13
Type of Occupancy in Comparable Communities
(Owner/Renter - 2000)

Type of Unit	Charlton	Dudley	Leicester	Oxford	Spencer	Uxbridge	Webster
Owner	3,143 (83%)	2,655 (71%)	2,811 (76%)	3,801 (75%)	2,871 (63%)	3,139 (79%)	3,728 (54%)
Renter	645 (17%)	1,082 (29%)	872 (24%)	1,257 (25%)	1,712 (37%)	849 (21%)	3,177 (46%)

Source: 2000 US Census

G. Types of Households

In Table 14, family households are differentiated from non-family households. A family household refers to a household that contains at least one census family, that is, a married couple with or without children, or a lone parent living with one or more children. Non-family household refers to either one person living alone in a private dwelling or to a group of two or more people who share a private dwelling, but who do not constitute a census family. More than 71% of Dudley's households consist of families. This represents a decrease since the 1990 Census when family households accounted for 75.34% of all Dudley Households. It should also be noted that the number of households headed by females is increasing; the 1990 Census counted 330 households headed by females (9.74% of all households) while the 2000 Census counted 393 or 10.5% such households.

Table 14
Dudley Households by Type (2000)

Household Type	Number of Households	Percentage
Family Household	2,669	71.4%
Non-Family Household	1,068	28.6%

Source: 2000 US Census

Since the majority of suburban communities are largely made up of single-family homes, they tend to have a higher percentage of family households; non-family households tend to rent. In comparison to similar communities (See Table 15), Dudley apparently has an average percentage of family households; Charlton, Leicester and Uxbridge have a higher percentage, Spencer and Webster a lower percentage, while Dudley and Oxford are the same.

Table 15
Households by Type:
Comparable Communities (2000)

Household Type	Charlton	Dudley	Leicester	Oxford	Spencer	Uxbridge	Webster
Family Household	3,045 (80%)	2,669 (71%)	2,708 (74%)	3,598 (71%)	3,094 (68%)	3,036 (76%)	4,271 (62%)
Non-Family Household	743 (20%)	1,068 (29%)	975 (26%)	1,460 (29%)	1,489 (32%)	952 (24%)	2,634 (38%)

Source: 2000 US Census

H. Housing Demand Assessment & Needs Analysis

The following analysis will document the demand for housing in Dudley, the housing needs of local residents and what is actually available (and affordable). Before going any further, it is important to outline the assumptions used in this analysis.

- The analysis makes use of year 2000 statistics so that they may be cross-referenced to the 2000 US Census data.
- The median family income for the Worcester Primary Metropolitan Statistical Area (PMSA), as determined by the federal Department of Housing and Urban Development (HUD) for the year 2000 is \$54,400.
- The State Department of Housing & Community Development (DHCD) Year 2000 Housing Certification Program lists the median family affordable purchase price for a new home in the Worcester PMSA at \$246,000.
- Dudley's poverty-level income figure was obtained from the 2000 US Census.
- Housing demand and need were calculated for poverty-level households, low-income households (poverty-level to 50% of the area median income), low-to-moderate income

households (50-65% of the area median income), moderate-to-middle income households (65-80% of the area median income), middle-income households (80-150% of the area median income) and upper income households (above 150% of area median income).

- It was assumed that households making up to 65% of the area median income would not be in the market for a home but instead would most likely rent their housing.
- It was assumed that households making more than 65% of the area median income would most likely be in the market for a home.
- For renters, it was assumed that 30% of their annual income would go towards rent.
- For homebuyers, it was assumed that 28% of their monthly income would go towards a house mortgage principal and interest. It was further assumed that homebuyers would make a down payment of at least 10% and have a 30-year mortgage at 7%.
- The number of rental units and their price ranges were estimated from the 2000 Census.
- Year 2000 home sales data was obtained from the Dudley Assessors Office and only arms-length home sales were considered qualified in the ensuing analysis. An “arms-length” sale is a sale between a willing buyer and a willing seller with no unusual circumstances involved (i.e. sale between members of the same family, sale in proceedings of bankruptcy, etc.)

Table 16 below provides an affordability analysis for Dudley rental units. The table outlines the various renter income categories, the number of Dudley households fitting the income categories, the number of rental units in Dudley that are affordable to the various income categories and the gap/surplus for such rental units.

Table 16
Rental Unit Need/Demand Analysis

Income Group	Range of Incomes	Range of Affordable Rent	# of Households	# of Actual Units	Deficit/ Surplus
Poverty	\$13,290 and Below	\$332 and Below	438	136	- 302
Poverty-to-Low	\$13,290 - \$27,200	\$332 - \$680	531	489	- 42
Low-to-Moderate*	\$27,200 - \$35,360	\$680 - \$884	374	184	- 190

* = Households earning between 50-65% of the area median income

Table 16 indicates that Dudley has a shortage of affordable rental units. The 2000 US Census further supports this assertion as 272 Dudley households were identified as paying more than 30% of their monthly income towards rent. It is generally assumed that renters paying more than 30% of their monthly income towards rent are exceeding their affordability. The waiting list of the Dudley Housing Authority further supports the need for affordable rental units:

- Elderly/Handicapped Housing Units (DHCD Program 667): There is a current waiting list of 11 local persons.

From a regional perspective, however, Dudley ranks fairly well in terms of affordable rental units. The 2000 DHCD Housing Certification Program lists an affordable monthly rent figure of \$1,360 (30% of area median family income) for the Worcester PMSA. According to the 2000 US Census, there are 1,087 rental units in Dudley, and approximately 15 of them had a monthly rent over \$1,360. Thus, Dudley's rental units are affordable when considered within the regional context.

Dudley also fares well in terms of homeownership opportunities. There were 104 arms-length single-family property sales in Dudley during 2000. Table 17 provides an analysis of demand for homeownership in Dudley. The table outlines the various homeownership income categories, the number of Dudley households fitting each category and the median sales price of various types of housing units in Dudley for 2000.

Table 17
Homeownership Need/Demand Analysis

Income Group	Range of Incomes	Range of Affordable Housing Prices	Number of Households
Moderate – to – Middle	\$35,360 - \$43,520	\$138,000 - \$169,000	332
Middle – to – Upper	\$43,520 - \$81,600	\$169,000 - \$318,000	1,235
Upper	\$81,600 and above	\$318,000 and above	836

Year 2000 Median Sales Price For Single Family Home: \$157,000
(104 arms-length sales in 2000)

Year 2000 Median Sales Price For Condominium: \$35,000
(11 arms-length sales in 2000)

* Please note that an analysis was not done for two-family or three-family dwellings. There were only six qualified two-family sales, and two qualified three-family dwelling sales during the year 2000.

The above table indicates that homeownership in Dudley was within the grasp of all the various income groups that can participate in the homebuyer market (those households that earn at least 65% of the median area income). As mentioned previously, the median family income in the Worcester PMSA was \$54,400 for the Year 2000, with an affordable home purchase price of \$246,000 for the median family income. Of the 104 qualified single-family home sales that took place in Dudley during 2000, only 6 homes sold above the median family income affordable purchase price of \$246,000. In fact, only 18 homes were sold for \$200,000 or more, meaning that 86 homes (or 82% of the qualified home sales) sold for less than \$200,000. Thus, housing in Dudley is relatively affordable when considered within the regional context.

According to assessor records dated from January 2001 through December 2001, there were 119 arms-length single-family home sales and housing costs remained relatively stable; the median sales price increased slightly to \$159,900. However, housing costs have outpaced household income over the last year. Assessor records dated from January 2002 through December of 2002 showed that there were 145 arms-length single-family home sales and the median sales price increased sharply to \$230,000. Because the median area income increased to \$58,400 in 2002 and interest rates decreased to approximately 6%, those households earning 100% of the median

area income can still afford a single-family home in Dudley. However, the moderate-to-middle income group (65%-80% of the median area income), having an affordability range between \$164,000 - \$202,000 in 2002, would find the prospect of single-family homeownership much more difficult to attain.

I. Supply of Subsidized Housing

In 1969, the state passed M.G.L. Chapter 40B with the goal of increasing the amount of affordable housing in communities throughout the Commonwealth. It contains two major components which are meant to assist developers who wish to build housing that meets the affordable housing criteria as outlined within the law. The first component is the Comprehensive Permit process, where several local permit applications are consolidated into a single application to the Zoning Board of Appeals (ZBA). The ZBA is authorized to grant waivers from zoning and other local regulations to make a project economically viable. The second component gives developers the right to appeal ZBA decisions to the Massachusetts Housing Appeals Committee (HAC) in communities where the percentage of subsidized housing units falls below 10% of the year-round housing units. (See DHCD web site for housing units that are counted on a community's Chapter 40B Subsidized Housing Inventory: www.state.ma.us/dhcd/ch40B).

Table 18
Supply of Eligible Housing Units Contributing Towards Chapter 40B
Subsidized Housing Inventory

Year	Total Year-Round Housing Units	Total Chapter 40B Units	% Subsidized Base
1990	3,525	88	2.50%
2000	3,877	88	2.27%

Source: Mass. DHCD

Table 19
Location and Type of Eligible Housing Units Contributing Towards Chapter 40B
Subsidized Housing Inventory

Development Name	Address	Total Units	Chapter 40B Units	Type
Chapter 689-1	Schofield Avenue	8	8	689 Program Special Needs
Joshua Place Apartments	Off West Main Street	80	80	667 Program Elderly/handicapped

Source: Dudley Housing Authority

As Table 18 illustrates, Dudley's percentage of eligible housing units contributing towards the Chapter 40B Subsidized Housing Inventory amounted to 2.27% as of 2000, well below the state's goal of 10%. The number of units in town did not change between 1990 and 2000. With the number of year round units increasing during the decade, the percentage of affordable units decreased during the ten-year period. Table 19 shows the locations and types of the 88 affordable units.

3. HOUSING GOAL AND OBJECTIVES STATEMENT

Below are Dudley's Housing Goal and Objectives. They are based upon findings from the preceding Housing Assessment and Analysis. The recommendations that follow are designed to fulfill the Town of Dudley's Housing Goal and Objectives over the next ten years and beyond.

GOAL

- Increase housing opportunities for a broad range of income levels.

OBJECTIVES

- Preserve Dudley's Rural Character as the Town Continues to Grow.
- Increase the Supply of Affordable Rental Units and Subsidized Units.
- Improve the Condition of Dudley's Housing Stock.
- Promote Home Ownership for Potential Homebuyers and Maintain Senior Citizen Homeownership.

A. Recommendations

1. Dudley's Population and Housing Stock Will Continue to Expand.

According to the Housing Assessment and Analysis, Dudley's population and housing unit production have expanded at a moderate pace over the last ten years. This trend is expected to continue.

Even if it were desirable, it is not possible to stop growth in Dudley by protecting the remaining undeveloped land as open space: there is simply too much undeveloped land (See Page III-4, Table 6, Build-Out Results). This condition of ample developable land is likely to remain the

case for several decades. Therefore, Dudley must think in terms of managing growth, not stopping it entirely.

Communities experience the negative impacts of growth long before final build-out is reached. This pattern is apparent in Dudley where growth has, to some degree, affected tax rates, scenic quality, and traffic even though plenty of land and road frontage remain undeveloped. Thus, growth management strategies for the next 25-50 years must focus on channeling growth into patterns that minimize environmental, fiscal, scenic, and transportation impacts – not necessarily on reducing the ultimate long-term build-out, which may not happen for several decades, if ever.

A. What Can Dudley Do to Preserve its Rural Character?

1. **Amend the Cluster Zoning Provision:** According to the Town’s Zoning Bylaw, the intention of Cluster Development is “to encourage the preservation of open space, promote efficient use of land in harmony with its natural features and allow for efficient provisions of services”. Dudley’s cluster development provisions have been on the books for many years and, to date, have never been used. The Town’s Master Plan stated that the Planning Board should examine why the cluster housing by-law has never been used and make necessary adjustments to make it a more attractive alternative to developers. Currently, the Town is drafting amendments in order to promote its use. The Town should follow through and amend the bylaw in accordance with the recommendations made in the Master Plan. (Note: Town Meeting approved a revised cluster bylaw in November 2003.)
2. **Adaptive Reuse:** The reuse of any abandoned, underutilized, or obsolete property could enable Dudley to direct growth towards already developed locations thus negating the need to develop additional land in areas without existing infrastructure. It would also be a way of preserving and/or restoring unique architecture in the community, which can also be of historical significance.

The Town could inventory publicly owned property, vacant, underutilized, deteriorated land and/or buildings with residential reuse potential. It can be possible to acquire such properties through tax taking, donation, negotiation, distress sale, and bank foreclosure, or Brownfield remediation.

The Community Preservation Act is a good tool to promote adaptive reuse projects while simultaneously preserving open space and historic resources. Under this program, a community that adopts the Community Preservation Act establishes a municipal Community Preservation Fund. Monies collected come from a surcharge of up to 3% on local property taxes. The state provides matching funds – no less than 5% but no more than 100%. Communities must allocate at least 10% of all funds raised to each of the following: open space, historic preservation, and affordable housing. The remaining 70% may be allocated to any of the three without a percentage restriction. Additional information on the Community Preservation Act can be found on the state’s website at www.state.ma.us/dhcd

3. **Stormwater Management and Erosion Control:** The Town's Master Plan stated that the Town should consider including stormwater management and erosion control standards in the Subdivision Regulations. As stated in the Master Plan, failure to adequately plan for a site's drainage and stormwater management needs can result in flooding of the property and adjacent properties and overloading down-slope drainage facilities. Soil erosion control measures also need to be in place during the construction phase in order to ensure that disturbed soil does not wash away. Therefore, the Town should make sure that stormwater and erosion control issues are adequately planned for during the development review phase and implemented during the construction phase.
4. **Transfer of Development Rights:** Transfer of Development Rights (TDR) can be very effective in preserving open space and directing growth in a community. However, one difficulty with TDR is that it can present a significant administrative burden and requires a high level of expertise to implement. While the Town may choose not to implement TDR now, it should be aware that this tool exists for potential use in the future.

TDR is an innovative policy that promotes multiple objectives, including protection of open space, enhancement of residential and commercial districts, and reduction of the Town's burden of providing municipal services. TDR is predicated on the legal concept that landowners possess a "bundle" of property rights, including title to the land itself plus the right to develop or use that land in certain ways, subject to zoning laws. Under TDR, these rights (i.e. the land itself and the development rights) may be bought and sold separately.

TDR zoning bylaws usually establish two districts. The "sending district" is an area designated for open space protection where development is to be discouraged or limited; the "receiving district" is an area that can support somewhat higher levels of development. Under TDR, owners of land in the sending district may sell their development rights to owners of land in the receiving district to allow them to carry out their development plans. This type of transfer is particularly useful when one portion of a town has valuable resources that need protection, such as open space or historic buildings, while other parts of town are suitable for new development at densities greater than those currently allowed under zoning.

2. Rent is Expensive for Lower Income Groups.

The U.S. Census indicates that 272 Dudley rental households pay more than 30% of their monthly income towards rent, which is excessive. Furthermore, according to the preceding housing analysis, there is a deficit of rental units affordable to poverty and low-income individuals. (See Page III-11, Table 16.)

Dudley's population is also growing older. Most elderly individuals are on a fixed income, which often makes it very difficult to continue to maintain their home throughout their retirement years. Dudley's 75 and over population has grown from 468 to 638 persons between the years 1990 and 2000 representing a 36.32% increase. The Dudley Housing Authority manages one senior housing development (Joshua Place Apartments), and the Authority's waiting list (11 persons)

indicates a current demand for senior housing. In addition, the segment of the Town's population aged 35-54 has grown by 27.33% over the last decade. Coupled with health care advances, it is anticipated that Dudley could potentially have a shortage of affordable elderly housing and will be dealing with this issue for some time to come.

A. How Can the Town Help to Increase its Affordable Rental Unit Supply?

- 1. The Town could include Senior Housing Provisions in the Zoning Bylaw.** Dudley's Zoning Bylaw does not contain any provisions that directly address the need for senior housing alternatives. Many communities in Massachusetts have adopted senior housing bylaws within their zoning framework. Such bylaws can take the form of senior residential communities, retirement communities, as well as assisted living and residential care facilities (both are governed by State regulations). The Town needs to give serious consideration to the type of senior housing alternative that best meets its elderly housing needs, whether it be a senior residential community, retirement community, assisted living facility or a residential care facility. In general, housing development in a community can have a negative impact on municipal finances largely due to educational expenses of school age children. However, senior housing would not impact municipal finances to such a degree; very few school age children would reside in this type of housing.
- 2. The Town could consider adopting an Accessory Apartment Provision within its Zoning Bylaw.** An accessory apartment is a second dwelling unit located within a single-family home, or it can be located above a garage or within an accessory structure. Another term for accessory apartments is "in-law apartments", for use by a related family member. Accessory apartments allow elderly people to live in close proximity to their family, as well as young people who cannot afford their own home. Surely families would appreciate the option of setting up an elderly parent with their own separate living space at a low cost. Accessory apartments also allow the primary homeowner to collect a bit of rent, thus helping them cope with property taxes. Many communities have adopted accessory apartment bylaws and have found that they provide a viable housing alternative for their residents. Similar to elderly housing, it is unlikely that school age children would reside in this type of housing, lessening any potential impacts on municipal finances.

Issues to consider when drafting an accessory apartment provision include access/egress to the apartment, external appearance of the principal or secondary structure, parking, sewage disposal, trash disposal, size limitations and the permitting process. Allowing accessory apartments would provide another housing choice for Dudley's elder residents and young people who cannot yet afford to buy a home.

- 3. The Town could Further Encourage Multi-Family Dwellings.** Such housing tends to be more affordable than single-family homes on large lots, due to smaller land costs per unit and lower construction costs. Thus, having more multi-family units would help the Town bridge the gap in affordable rental units. Having more people live in the village areas will increase the demand for shopping opportunities, services and food establishments. Encouraging multi-family dwellings in areas with public water and sewer

services would also alleviate some of the pressure to develop housing in the more rural areas of Town and help reduce road and infrastructure maintenance costs. One way the Town could encourage multi-family dwellings in suitable locations with appropriate infrastructure in place would be through Adaptive Reuse. (See Page III-15.)

3. The Town Has a Shortage of Subsidized Housing.

Chapter 40B of Massachusetts General Laws outlines a municipality's responsibilities regarding the provision of low and moderate-income housing. The DHCD web site for affordable housing units that are eligible to contribute towards a community's Chapter 40B Subsidized Housing Inventory can be found at www.state.ma.us/dhcd/ch40B. Not all subsidized, low or moderate-income housing in the community is listed since Section 8 mobile vouchers do not qualify for the inventory. Note that this is quite different from the issue commonly known as "affordable housing", which is generally defined as housing that costs no more than one third of a person's total income. Looking at the average home sale price and average contract rent in Dudley, the Town does provide some opportunities for affordable housing. (See Housing Demand Assessment and Needs Analysis.) However, poverty and low-income people cannot afford to buy a house in Dudley and many renters pay more than 30% towards rent. Furthermore, according to the Housing Assessment and Analysis, housing prices have increased substantially over the last two years making homeownership more difficult. While existing homeowners benefit from this price escalation, the local and regional economy will suffer if potential employers are unable to fill vacancies due to the high cost of housing.

Currently, there are only a handful of municipalities in Massachusetts that have achieved this 10% threshold. At the present time, only 2.27% of Dudley's housing stock meets the Chapter 40B definition (See Table 18, Page III-13). While this is not unusual for a community like Dudley, the town should make a good faith effort to provide its share of affordable subsidized housing for its citizens. For municipalities that do not meet the 10% threshold, any developer proposing low and moderate-income housing can have the project exempted from local zoning and subdivision requirements, and the development could be built in any zoning district, regardless of suitability. Many communities have been unpleasantly surprised to have comprehensive permit applications thrust upon them in very inappropriate locations.

A. How Can the Town Increase its Supply of Subsidized Housing?

1. Non-Regulatory Options: The Town could review its non-regulatory options for providing low and moderate-income housing and make every effort to ensure that 10% of its housing stock consists of low and moderate-income housing.
 - a. Grant Programs: The Town should take a closer look at the State's Affordable Housing Trust Fund and the various housing grant programs offered by the Massachusetts Department of Housing and Community Development (DHCD) (See Recommendation under Section 4A, for more detail concerning grant programs). The Board of Selectmen may opt to establish a Local Housing Needs Committee to assist in this effort.

- b. Inventory of Privately Owned Property: The Committee could inventory vacant, underutilized land and/or deteriorated buildings with the potential of supplying subsidized housing and work with the property owner to help secure state funds.
 - c. Publicly Owned Property: The Committee should also conduct an inventory of any publicly owned land/buildings that might be suitable for subsidized housing. There is a variety of State sponsored funding options that can be used to develop/rehabilitate publicly owned properties that have the potential to be converted to subsidized housing.
 - d. Public Education: The Committee should work to educate the public about current and future housing needs, the social and economic benefits associated with it, and its importance for achieving community acceptance of different forms of affordable housing. Municipalities can play a critical role in providing and facilitating public education in order to develop the community support critical to the success of affordable housing policies and initiatives. Municipalities have a variety of approaches available to help educate the public, ranging from workshops and public presentations to major media campaigns.
2. Chapter 40B Housing Proposals: The Zoning Board of Appeals should continue seeking out training opportunities on Comprehensive Permits for low and moderate-income housing projects under Chapter 40-B. The Town should also develop review criteria for acting on such proposals. The UMass Extension Service's Citizen Planner Training Collaborative (CPTC) offers classes on this subject and will even provide customized training sessions to individual communities. In addition, DHCD has prepared a procedural "how to" booklet for local communities. The Zoning Board of Appeals would be the responsible municipal entity to establish review criteria for comprehensive permit proposals. The state Housing Appeals Committee web site also has guidelines and examples of model regulations.
 3. Inclusionary Zoning/Incentive-Based Zoning: The general purpose behind inclusionary zoning and incentive-based zoning is to increase a community's affordable housing stock. Inclusionary zoning can be seen as the "stick" approach, while incentive-based zoning is the "carrot" approach. An inclusionary zoning bylaw is one that requires new subdivisions to set aside a certain percentage of new housing units at below-market rates, i.e., units that can be counted towards the town's subsidized housing inventory under Chapter 40B. Typically, inclusionary bylaws require that anywhere from 10% to 25% of new housing units consist of below-market units. The Massachusetts Zoning Act does not explicitly authorize inclusionary zoning; however, many Commonwealth communities have inclusionary zoning bylaws on the books and have made the case that such bylaws are legally valid under the State's "Home Rule" authority. Massachusetts courts have generally approved of inclusionary zoning, but have frowned on assessing fees in lieu of providing actual affordable housing units.

Incentive-based zoning attempts to increase the affordable housing stock by offering incentives to developers to create below-market units as part of their developments. Such incentives can include higher densities, reduced frontage, reduced setback requirements, a reduction in the required roadway width, reduced infrastructure connection fees, and other incentives that can improve a developer's bottom line. Incentive-based zoning is an example of giving something to get something. Incentive-based zoning is explicitly authorized within the Massachusetts Zoning Act. Incentives only become an effective tool when there exists a strong demand so that developers are willing to build the additional units in return for higher profits.

The Town may wish to take some pro-active steps to bring its affordable housing unit inventory closer to the 10% required under Chapter 40B. Towards that end, Dudley should investigate both inclusionary zoning and incentive-based zoning and determine which approach would work best for the Town. The responsible municipal entity would be the Planning Board.

4. Dudley has Approximately 932 Homes that were Built Prior to 1940.

As indicated in the Housing Assessment and Analysis (Page III-7, Table 9), almost 24% of Dudley's housing stock (approximately 932 homes) was built prior to 1940. While this percentage is lower than the state average of 34.5%, it is quite likely that many of these older residences would not meet today's various housing codes (plumbing, electricity, weather-proofing, building code, etc.). Furthermore, data maintained by the Town (See Page III-8, Housing Assessment and Analysis) indicate a strong need to improve some of the housing stock. Finally, every community contains homes where aesthetic improvements could be made; housing rehabilitation would also serve to enhance the visual appearance of neighborhoods throughout Dudley.

A. What Could the Town do to Improve the Condition of its Housing Stock?

Dudley could further investigate various grant opportunities to see if they make sense for Dudley and its property owners. Because of a shortage of housing throughout the Commonwealth, the Governor enacted Executive Order 418 (E.O. 418). One element of E.O. 418 involves Housing Certification. The purpose of Housing Certification is to provide an incentive for communities to take steps to increase the supply of housing affordable to households across a broad range of incomes. Communities that achieve Housing Certification are eligible to apply for certain discretionary grant programs and to receive bonus points for other grant programs. In order for Dudley to remain competitive or even eligible when applying for many state grants, the Town must be Housing Certified. Dudley has been granted provisional Housing Certification ending June 30, 2003.

1. State and Federal Grant Programs

There are numerous grant opportunities for housing rehabilitation projects, especially when they benefit low and moderate-income families. The following is a brief description of available housing rehab grants that can be utilized by the Town.

- *Community Development Block Grant Program:* This program was developed at the federal level by the US Department of Housing and Urban Development (HUD) and is implemented at the State level by DHCD. Funds for housing rehabilitation (code violations, roof and chimney repairs, siding, etc.) are available on an annual basis. Communities that have been Housing Certified by DHCD receive bonus points when applying for Community Development Block Grant funds.
- *The Housing Development Support Program:* The Housing Development Support Program is a component of the federal Community Development Block Grant (CDBG) program administered by DHCD. The program is designed to assist with project-specific affordable housing initiatives with the emphasis on small-scale projects that might otherwise go un-funded. Typical projects include housing rehabilitation, new construction, reclamation of abandoned properties, elderly and special needs housing, and the conversion of obsolete and under-utilized buildings for housing. Funds can be used for acquisition, rehabilitation, site work and related infrastructure. Projects are limited to a maximum of seven housing units, 51% of which must be affordable to and occupied by low and moderate-income households (households earning up to 80% of the area's median household income).
- *The Massachusetts Affordable Housing Trust Fund:* The Affordable Housing Trust Fund (AHTF) was established by an act of the State Legislature and is codified under Chapter 121-D of the Massachusetts General Laws. The AHTF operates out of DHCD and is administered by MassHousing with guidance provided by an Advisory Committee of housing advocates. The purpose of the fund is to support the creation/preservation of housing that is affordable to people with incomes that do not exceed 110% of the area median income. The AHTF can be used to support the acquisition, development and/or preservation of affordable housing units. AHTF assistance can include:
 - Deferred payment loans and low/no-interest amortizing loans.
 - Down payment and closing cost assistance for first-time homebuyers.
 - Credit enhancements and mortgage insurance guarantees.
 - Matching funds for municipalities that sponsor affordable housing projects.
 - Matching funds for employer-based housing and capital grants for public housing.

Housing developments financed by the AHTF can include market-rate units, but the Trust Fund cannot be used to support such units. The level of assistance provided by the AHTF to a specific project must be the minimum amount necessary to achieve the desired degree of affordability. Housing units created through the AHTF can be

counted towards the Town's 10% threshold for affordable housing under Chapter 40B.

- *The Local Initiative Program:* The Local Initiative Program (LIP) is administered by DHCD and was established to give municipalities more flexibility in their efforts to provide low and moderate-income housing. The program provides technical and other non-financial assistance to housing developed through the initiative of local government to serve households below 80% of the area's median income. The program limits the State's review to the most basic aspects of affordable housing: the incomes of the people served, the minimum quality of the housing provided, fair marketing and level of profit. LIP projects can include new construction, building conversion, adaptive re-use, and building rehabilitation. LIP projects are usually administered at the local level by a local housing partnership and approved by the Board of Selectmen. Affordable housing units created by a LIP project will be counted towards the municipality's 10% low and moderate-income housing goal under Chapter 40B.
- *The HOME Program and the Housing Stabilization Fund:* These programs are offered by HUD (managed at the state level by DHCD) and are designed to support the acquisition and/or rehabilitation of existing structures. Acquisition funds are only available to low-income families. Eligible projects include: property acquisition; housing construction and/or rehabilitation; connecting to public utilities (sewer & water); and making essential improvements such as structural repairs, plumbing improvements, and energy conservation measures. These programs are offered every two years. Interested communities need to do a substantial amount of advance work prior to submitting a grant application.
- *The 'Get the Lead Out' Program:* This HUD-sponsored program is managed at the State level by the Massachusetts Housing Finance Agency (MHFA). This is a lead abatement program available to single family homes and 2-4 family properties. Offered on an annual basis, these funds are generally easier to apply for than the above referenced CDBG funds.
- *Home Improvement Loan Program:* Another HUD program managed by MassHousing, this program offers funds to eligible owners of one-to-four unit residential properties for improvements to their dwellings. Eligible improvements include: sewage disposal systems and plumbing needs; alterations and renovations that will enhance property safety; energy-related improvements; and repairs designed to bring the structure up to local building codes. Offered on an annual basis, these funds generally have an easier application process than the above referenced CDBG funds.
- *Weatherization Assistance:* HUD provides funding assistance to regional non-profit organizations for fuel assistance and weatherization programs. The Worcester Community Action Council, Inc. is the regional agency that provides such services

for Worcester County communities. In order to be eligible for the weatherization program, an applicant must receive some form of federal fuel assistance benefits.

5. Many Dudley Residents Are Not Yet Homeowners and Some Elderly Residents Struggle to Maintain Homeownership.

Rental units are an important source of housing in every community for a variety of reasons, and according to the 2000 U.S. Census, there are 1,082 renter-occupied housing units in the Town of Dudley. However, owning a home is a goal for many Americans, and research suggests that homeownership can have a positive influence on families, neighborhoods and the economy. With more than 1,082 rental households in Dudley, some could be unaware that homeownership is within their grasp and/or could use assistance while going through the home buying process. In addition to promoting home ownership, helping the elderly to maintain homeownership after retirement is important. The elderly population is growing and some senior citizens could find it necessary to sell their home due to a reduction in income creating hardship and neighborhood instability.

A. How Can the Town Help to Promote and Maintain Homeownership?

1. **Homebuyer Counseling, Education.** Homebuyer counseling and education are valuable marketing and outreach tools that can help Dudley residents bridge the information gap and prepare them for a successful application and ownership experience. The Town of Dudley could either plan a first-time homeownership initiative by partnering with an agency or institution that provides homebuyer counseling, or simply make it known to Dudley residents that such educational organizations exist. There are many nonprofit agencies that offer this service and most have informational brochures that could be displayed at Municipal Offices. They are trained, monitored and certified by the Massachusetts Homeownership Collaborative, which is coordinated by the Citizens Housing and Planning Association (CHAPA). They provide “soup to nuts” information about the home-buying process, from how to budget or repair damaged credit to the many types of mortgage products and down payment assistance programs. Many also sponsor or participate in homebuyer fairs. The CHAPA website (www.chapa.org) maintains a list of counseling agencies and their current and planned activities. Many conventional lenders conduct similar programs.
2. **Soft Second Loan Program.** This is a program sponsored by both the public and private sectors that combines a conventional first mortgage with a subsidized second mortgage to help first-time low and moderate-income households qualify for a mortgage and purchase a home. The first-time homebuyer must make a 5% down payment (2% needs to be their own money). A standard 30-year fixed rate mortgage covers up to 75% of the purchase price of a home, avoiding the additional expense of private mortgage insurance. A publicly subsidized second mortgage covers the remaining 20%. The borrower makes reduced, interest-only payments on the second mortgage for 10 years. For the first 5 years, public funds will cover up to 75% of the monthly payments on the second mortgage. Over the next five years, the amount of subsidy gradually decreases until it is

fully phased out by year 10. By year 11, the homeowner will be paying the full principal payments on the second mortgage.

3. **Senior Work-Off Abatements.** One way the Town can help individuals maintain homeownership is through a Senior Work-Off Abatement Program. Such a program would reduce the local property tax liability of seniors in exchange for volunteer service to the municipality. This program has been very successful in other towns such as Easthampton and Southbridge.
4. **Self-Help Housing.** The Town could explore Self-Help Housing programs. Self-Help programs involve sweat-equity by the homebuyer and volunteer labor of others to reduce construction costs. Some communities have donated building lots to Habitat for Humanity to construct single affordable housing units. Under the Habitat for Humanity program, homebuyers contribute between 300 and 500 hours of sweat equity while working with volunteers from the community to construct the home. The homeowner finances the home with a 20-year loan at 0% interest. As funds are paid back to Habitat for Humanity, they are used to fund future projects.

4. Implementation

Several recommendations are made in this report to assist the Town in addressing the housing needs identified in the Housing Assessment and Analysis. These needs include preserving the Town's rural character, assisting lower income groups and the Town's growing elderly population, increasing the supply of subsidized housing, improving the physical condition of the housing stock, and promoting homeownership. The following is an implementation strategy that the Town could utilize to meet its housing needs.

- The Community Development Plan Committee should remain intact after completion of the Community Development Plan and assume responsibility for implementing some of the recommendations made in the report. Simultaneously, the Community Development Plan Committee should work to educate the public about its housing needs and the social and economic benefits associated with different forms of affordable housing. Workshops and public presentations could be arranged to enhance community support for affordable housing policies and initiatives. *Responsible Entity: Community Development Plan Committee.*
- The Town has been drafting amendments to its cluster zoning provision. The intention of cluster development is to encourage the preservation of open space, promote efficient use of land in harmony with its natural features and allow for efficient provisions of services. A developer has never used the Town's Cluster By-law. The Town should follow through and make the necessary adjustments to make it a more attractive alternative. This would help the Town retain its rural character. (Note: This task was accomplished in the fall 2003 Town Meeting.) *Responsible Entity: Planning Board.*
- After the Town drafts the amended cluster zoning provision, the Planning Board should work to include stormwater management and erosion control standards in its subdivision

regulations, and implement a Senior Housing bylaw and an Accessory Apartment Bylaw. Stormwater management and erosion control standards will provide environmental benefits and help to protect the Town's rural character. Since Dudley's older population is increasing substantially, a senior housing bylaw and an accessory apartment bylaw will provide housing for a segment of the population that is not adequately served by Dudley's housing supply. Also, senior housing would probably have a minimal impact on town finances since very few school age children would reside in this type of housing. *Responsible Entity: Planning Board*

- The Community Development Plan Committee should start investigating grant opportunities this year, including those that would improve the physical condition of the housing stock. In particular, the Town could apply for Community Development Block Grant (CDBG) funds for Housing Rehabilitation.

Usually, CDBG applications are available to communities in mid-summer and due annually sometime in the fall. CDBG applications require a substantial amount of time and effort to prepare. The Committee should consult with the Board of Selectmen now and determine whether or not to apply for CDBG funds this year or perhaps next year. CDBG applications are very competitive; historically, less than half of all applications are funded. If the Town is not at first successful, it should reapply the following year. *Responsible Entity: Board of Selectmen and Community Development Plan Committee.*

- The Town has taken a proactive approach to allow multi-family dwellings in the community through its zoning bylaw. Higher density housing can be more affordable and can also alleviate some pressure to develop in more rural areas. One way the Town could fur79 Twu29 0Tc8 389.880

Partnership (MHP) web site at www.mhp.net. A brief description of the necessary steps that a community must undertake to participate can also be found there. These steps include finding a public source of funds to subsidize the interest on the second mortgage, lining up local banks, and working with MHP to get the program up and running. *Responsible Entity: Community Development Plan Committee*

- A Senior Work-Off Abatement Program could help elderly individuals maintain homeownership and make any necessary repairs to their home by reducing the local property tax liability of seniors in exchange for volunteer service to the municipality. The Community Development Plan Committee has already begun to explore the feasibility of a Senior Work-Off Abatement Program by contacting other communities with successful programs. The Committee should follow through on this effort by continuing research concerning model documents, how other communities implemented their program, and then create a program that would make sense for Dudley. *Responsible Entity: Community Development Plan Committee.*
- Self-Help Housing is a good way to promote affordable homeownership. The Community Development Plan Committee has already taken the first step towards implementing this recommendation by contacting Habitat for Humanity and planning a public presentation. The Community Development Plan Committee should follow through on this effort and work with Habitat for Humanity to determine the appropriate next steps to develop self-help housing in Dudley. *Responsible Entity: Community Development Plan Committee.*
- The Zoning Board of Appeals should establish review criteria on how to deal with Comprehensive Permits now and continue to attend training sessions relating to the comprehensive permit process. The Town has never been subjected to a Comprehensive Permits in the past, but if one were proposed in the future, the Town would be better prepared. *Responsible Entity: Zoning Board of Appeals*
- Over the long term, as the real estate market continues to strengthen and housing costs escalate in Dudley, the Town should begin to investigate more complex housing strategies such as inclusionary zoning/incentive-based zoning. In addition, Transfer of Development Rights (TDR) is a tool with the potential to direct growth to more suitable locations while protecting natural resources. More information on TDR is available on the American Farmland Trust-Farmland Information Center web site at www.farmlandinfo.org including a list of local governments with TDR programs that could be contacted by the Town. In addition, the Cape Cod Commission developed a model Transfer of Development Rights Bylaw/Ordinance for Towns in Barnstable County. It can be found at www.capecodcommission.org/bylaws/tdr.html. *Responsible Entities: Inclusionary Zoning/Incentive-Based Zoning: Planning Board, Transfer of Development Rights: Conservation Commission and Planning Board.*

5. Housing Unit Production and Land Use Suitability

Housing Unit Production: According to the Housing Assessment and Analysis, the Town of Dudley is expected to grow by 705 persons between the years 2000 and 2010 (Table 1, Page III-2) and the typical Dudley household contains 2.57 persons. Taking into consideration the trend towards smaller household sizes, it is anticipated that an additional 280 housing units will need to be produced between the years 2000 and 2010 in order to house the expected population increase. To meet this long-term goal, the Town's short-term numerical goal for housing unit production should be a minimum of 28 housing units per year. Currently, Dudley is exceeding its short-term goal: seventy-nine (79) building permits were issued in the year 2000, sixty-eight (68) permits in 2001, and eighty (80) permits in 2002.

The Town currently has a healthy mix of rental units (29% of the housing stock) in comparison to similar communities (See Table 13, Page III-9) and should strive to maintain this balance. Out of the additional 280 total units to be produced by the year 2010, approximately 29% or 81 units should be rentals.

The Housing Assessment and Analysis indicates that much of the housing stock in Dudley is relatively affordable. However, only 2.27% of the Town's housing stock is subsidized. While this is not unusual for a community like Dudley, there is a shortage of affordable rental units for poverty and low-and-middle-income groups, and the Town's elderly population is growing. The Town should make a good faith effort to increase the supply of subsidized units to 5% (approximately 120 additional units) by the year 2010.

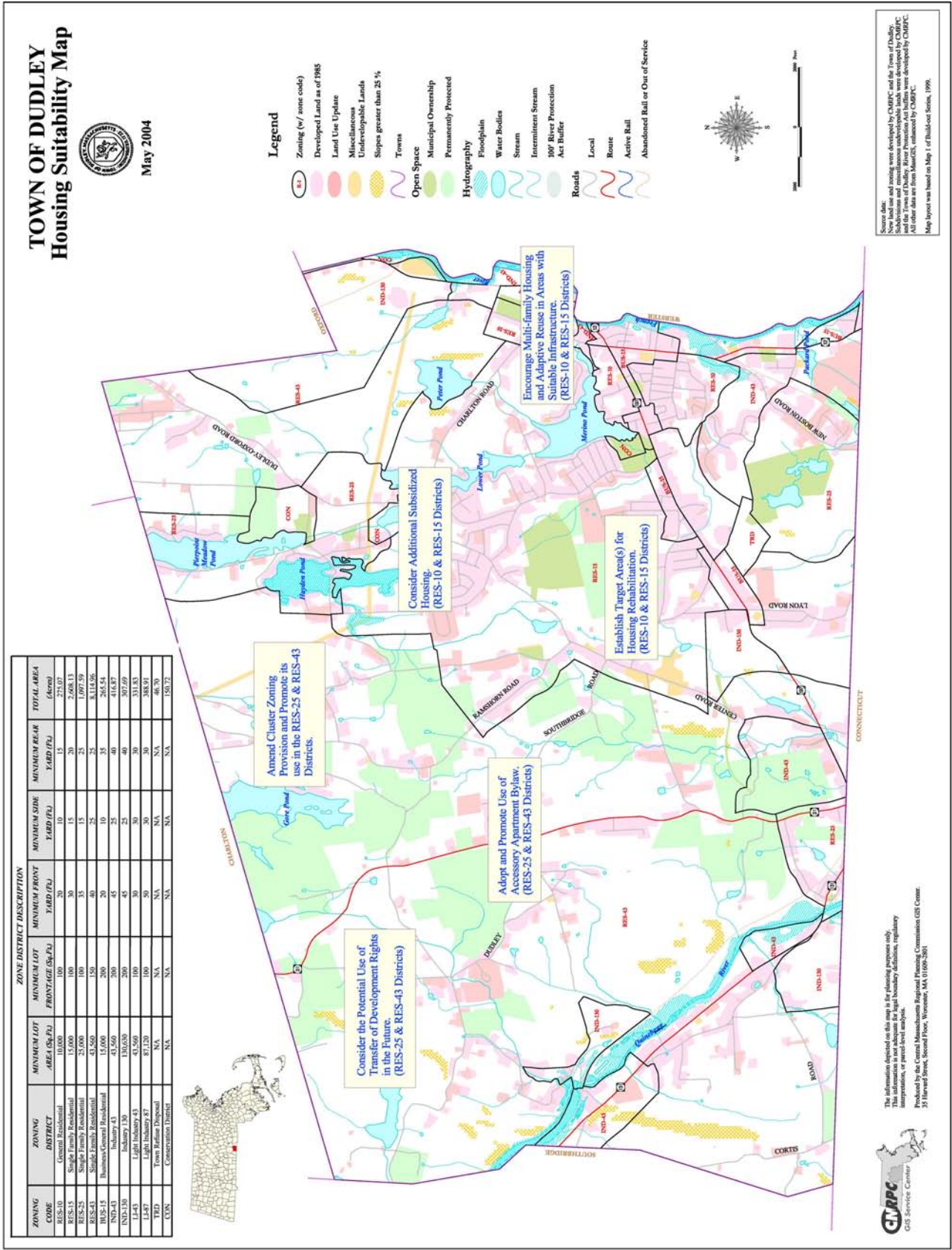
Land Use Suitability: The following identifies development potential throughout the Town of Dudley. It is to be used together with housing recommendations, housing unit production goals, Open Space and Natural Resources Mapping, and the Housing Suitability Map included in the Community Development Plan. The Housing Suitability Map that follows summarizes the key housing strategies recommended in this report. In addition, the Community Development Plan Map in Appendix B consolidates the housing and open space recommendations to provide a useful reference and planning tool for local officials.

The Town's Master Plan states that Dudley's land use pattern can be broken down into two segments: the densely-settled east and southeast, and the sparsely-developed rural north and west. The Town's multi-family housing units are located almost exclusively in the east, while single-family homes are the dominant land use in the north and west. A comparison of the Town's Zoning Map leads to the following conclusions concerning future residential development and land use suitability:

- The Residential-10 zoning district is located in the eastern part of Town. This district requires the smallest lot size in Town (10,000 sq. ft.), and has the highest density of people. Municipal sewer and water serve the vast majority of the Residential-10 district and the area is close to major transportation and commercial areas. The residential development density slightly decreases in the Residential-15 districts (15,000 sq. ft. minimum lot size requirement) as one heads away from West Main Street. The largest Residential-15 district is located in an area encircled by Charlton Road, Dudley Center

Road, and West Main Street. The majority of frontage along Mason Road, Airport Road Tanyard Road, and Dudley Hill Road has been developed residentially. Although municipal water and sewer serve a majority of this district, the area north of Dudley Center Road (and the road itself) does not have municipal sewer service at this time. The Town's other Residential-15 district is located south of West Main Street along Lyons Road.

- Multi-family housing and adaptive reuse should be encouraged in both the Residential-10 and Residential-15 Districts in areas with suitable infrastructure (water and sewer). This would help to serve the needs of young adults, empty nesters, small families, special needs citizens, and others seeking smaller than traditional housing. With necessary infrastructure in place, the Town could consider locating elderly/special needs, or family subsidized housing units in these residential districts as well.
- The Residential-10 and Residential-15 zoning districts are also areas with old mill housing (now multi-family homes). It is quite likely that many of these older residences would not meet today's housing codes and could be targeted by the Town for Community Development Block Grant Housing Rehabilitation.
- The density of residential development further decreases in the Residential-25 districts in the north along either side of Pierpoint and Hayden Ponds, and along the eastern side of New Pond. Municipal sewer or water does not serve these northern Residential-25 districts. There is a Residential-25 district in the southeast corner of Town, just south of Rocky Hill Road. Municipal water serves only a small portion of this district. The last Residential-25 district is a small area encircled by Dresser Hill Road, Mill Road and Southbridge Road.
- The vast majority of north and west Dudley is covered by the Residential-43 district, which has a one-acre minimum lot size requirement. This is the Town's largest lot size requirement and has lead to a rural, low-density development pattern. There are still large stretches of roadways in these areas that have yet to be built upon. The Residential-43 District is not serviced by municipal sewer, and only Healy Road and a small stretch of Dresser Hill Road are served by municipal water. According to a Comprehensive Wastewater Management Plan conducted in 2002 that analyzed soils and septic system failures, there are locations within the Residential-43 District that have a high septic system failure rate. The most critical were identified along Dresser Hill Road, Leo Avenue, Raymond Avenue, and Hickory Drive areas.
- The Residential-25 and Residential-43 Districts are both desirable locations for residential uses serving families and the elderly, particularly through cluster development and accessory apartments. In the future, transfer of development rights could potentially be used in this area to help preserve the Town's rural character while directing growth to locations with adequate infrastructure and services.



ZONE DISTRICT DESCRIPTION					
ZONING CODE	ZONING DISTRICT	MINIMUM LOT AREA (Sq. Ft.)	MINIMUM LOT FRONTAGE (Sq. Ft.)	MINIMUM SIDE YARD (Ft.)	TOTAL AREA (Acres)
RES-10	General Residential	10,000	20	10	273.07
RES-15	Single Family Residential	15,000	30	15	2,008.13
RES-25	Single Family Residential	25,000	40	25	3,114.56
RES-43	Single Family Residential	43,500	60	40	264.54
IND-15	Business/General Residential	15,000	20	10	414.87
IND-43	Industry 43	43,500	45	25	307.69
IND-130	Industry 130	130,000	200	45	331.83
LA-43	Light Industry 43	43,500	100	30	388.91
LA-87	Light Industry 87	87,120	100	50	46.70
CON	Town Refuse Disposal	NA	NA	NA	150.72

Dudley Community Development Plan

Section Four – Site Plan Review Regulations

5.04.00 SITE PLAN REVIEW REGULATIONS

5.04.01 Purpose and Intent

The purpose of the Site Plan Review Bylaw hereby established is to protect the safety, public health, convenience and general welfare of the inhabitants of the town by ensuring that the design and layout of certain developments permitted by right or by special permit will constitute suitable developments and will not be a detriment to the neighborhood or the environment.

5.04.02 Scope – Projects Requiring Site Plan Review

A. Projects Requiring Minor Site Plan Review

1. The construction or exterior expansion of any nonresidential building or structure or change of use from residential to commercial/industrial in any district where such construction will exceed a total gross floor area of three thousand (3,000) square feet, but less than five thousand (5,000) square feet, within any five (5) year period.
2. The construction or exterior expansion of any residential building or structure or change of use from commercial/industrial to residential in any district where such construction will exceed two (2) apartment units, but fewer than (7) apartment units.
3. The construction or renovation of parking facilities involving five (5) but fewer than ten (10) additional parking spaces, with the exception of normal maintenance.

B. Projects Requiring Major Site Plan Review

1. The construction or exterior expansion of any non-residential building or structure or change of use from residential to commercial/industrial in any district where such construction will exceed a total gross floor area of five thousand (5,000) square feet per building within any ten (10) year period.
2. The construction or exterior expansion of any residential building or structure or change of use from commercial/industrial to residential in any district where such construction will exceed seven (7) apartment units.
3. The construction or renovation of parking facilities involving ten (10) or more additional parking spaces, with the exception of normal maintenance.
4. A site plan shall be submitted to the Planning Board for all uses identified with the symbol “SPR” in Section 2.03.02, Table of Uses.

5.04.03 Application Procedure

A. Pre-Application Procedure

If an applicant so desires, the Planning Board strongly encourages a pre-application meeting to be held with the Planning Board, at one of its regularly scheduled meetings, to present and discuss the general development concept for a site plan. The applicant may present as many or as few of the

submission materials listed in Section 5.04.04 (Site Plan Contents and Submission Materials) as desired, with no requirements or limits for number or types of details presented for discussion.

B. Preliminary Site Plan

A Preliminary Plan may be submitted to the Planning Board and, upon written request of the applicant, waivers concerning the required content, where the project involves a relatively simple development plan, or constitutes a minor site plan, may be requested at this time. The Planning Board shall act on any waiver requests submitted with the Preliminary Plan within thirty (30) days. Minor site plans shall set forth all of the information required by this bylaw; provided, however, the Planning Board may, upon written request of the applicant, waive any of the technical requirements contained in Section 5.04.04 (Site Plan Contents and Submission Materials). The scale of a minor site plan may be 1"=40', and the plan may depict topographical contours at intervals available on maps provided by the United States Geological Survey. The public hearing process may be a requirement for minor site plan review.

C. Submittal of Site Plan

1. An applicant for a site plan review under this section shall file with the Planning Board thirteen (13) copies of the site plan (drawn at a scale of 1" = 20') accompanied by a completed Site Plan Review Application. The Planning Board shall acknowledge receipt of these plans by endorsing them by signature and the date of receipt. One copy of the endorsed site plan shall be given by the applicant to the Town Clerk to be kept on file. The date of the receipt by the Town Clerk shall be the official filing date.
2. The Planning Board shall distribute copies of the plan to the following municipal departments, boards and commissions for review and comment: Building Inspector, Highway Superintendent, Water Department, Sewer Department, Board of Health, Conservation Commission, Board of Selectmen, Zoning Board of Appeals, Fire Department, and Police Department.
3. Said departments, boards and commissions shall have forty (40) days to submit recommendations/comments in writing to the Planning Board for Major Site Plan Review and thirty-five (35) days for Minor Site Plan Review. Failure to report within the allotted time shall be interpreted as approval of the submitted site plan by that Board.
4. The Planning Board is authorized to retain a registered professional engineer or other professional consultant(s) to advise the Planning Board on any or all aspects of the site plan.
5. Site Plan applicants shall submit application, a non-refundable filing fee and a professional review fee in accordance with the Planning Board Fee Schedule. The unexpended balance of the professional review fee shall be returned to the applicant within thirty (30) days from issuance of approval or disapproval. To the extent that the professional review fee paid upon filing of the site plan shall prove insufficient to pay for the evaluation and review of the site plan by independent consultants hired by the Planning Board, and/or pay for clerical, publication, and all other related costs, the charges, if any, shall be billed to the applicant. The applicant shall pay all invoices submitted to him by the Planning Board within thirty (30) days.
6. Site plans depicting roadways, utilities, bridges, culverts, or drainage shall be prepared by a registered professional engineer licensed in Massachusetts. A waiver may be granted from this requirement when deemed appropriate.

D. Planning Board Final Action:

The Planning Board shall, within forty-five (45) days from receipt of a Major Site Plan, hold a public hearing and shall take final action within sixty-five (65) days from the time of the filing of the receipt

by the Town Clerk for Plan Review. The Planning Board shall, within fifty-five (55) days from receipt of a Minor Site Plan by the Town Clerk, take final action. Time limits may be extended by written agreement between the applicant and the Planning Board. The Planning Board final action, rendered in writing, shall consist of either:

1. Approval of the site plan based upon determination that the proposed plan will constitute a suitable development and is in compliance with the standards set forth in this bylaw; or
2. Disapproval of the site plan based upon a determination that the proposed plan does not meet the standards set forth in this bylaw; or
3. Approval of the site plan subject to any condition, modification or restriction required by the Planning Board which will ensure that the project meets the standards set forth in this bylaw.

Failure of the Planning Board to take final action upon an application for site plan review within the time specified above shall be deemed approval of said application. Upon issuance by the Town Clerk of an appropriate certification that the allowed time has passed without Planning Board action, the required building permits may be issued.

In cases where a development requires site plan review by the Planning Board and a special permit from the Board of Appeals, the applicant shall file site plan and special permit applications concurrently with the appropriate Board(s). Application and public hearing fees shall be paid to the Board of Appeals and professional review fees shall be paid to the Planning Board. The Planning Board shall review and take action on the site plan and shall submit a report with recommendations to the Board of Appeals within forty-five (45) days of the receipt of the application. The Board of Appeals shall incorporate the Planning Board's recommendations and conditions in its special permit decision, or shall state in the decision the reasons why such recommendations or conditions were not followed.

5.04.04 Site Plan Contents and Submission Materials

- A. The purpose of this plan is to provide general information on the site, its existing conditions, and to illustrate and fully explain the proposed changes taking place within the site. All submitted site plans shall depict the following information:
 1. Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan. If other than the owner, a notarized statement authorizing the applicant to act on the owner's behalf and disclosing his interest shall be submitted.
 2. Name of project, property address, Assessor Map-Block-Lot Number, the date, a north arrow, names of abutters, and scale.
 3. A vicinity sketch (locus map) showing the location of the land/site in relation to the surrounding public street system and other pertinent location features within a distance of one thousand (1,000) feet.
 4. Natural features including watercourses, water bodies, and wetlands, tree lines, significant trees, and other significant vegetative cover, topographic features, soil properties, and any other environmental features of the landscape that are important to the site design process.
 5. Existing and proposed contours at intervals of two (2) feet with spot elevations provided when needed.
 6. Surveyed property lines including angles and bearings, distances, monument locations, and size of the entire parcel. A professional land surveyor licensed in Massachusetts must attest to said plan.

7. Lines of existing abutting streets and driveway locations within two hundred (200) feet of the site.
8. Location, elevation, and layout of existing and proposed storm drainage systems including catch basins and other surface drainage features.
9. Shape, size, height, location, and use of all existing and proposed structures on the site including first floor plan(s), building elevation(s), rendering of the proposed structure(s), and approximate location of structures within two hundred (200) feet.
10. Location of all existing and proposed easements, rights-of-way and other encumbrances.
11. All floodplain information, including the contours of the one-hundred (100) year flood elevation based upon the most recent Flood Insurance Rate Map for Dudley, or as calculated by a professional engineer for unmapped areas.
12. Location, flow and timing patterns of existing and proposed traffic.
13. Location, width, curbing, and paving of all existing and proposed streets, rights-of-way, easements, alleys, driveways, sidewalks, and other public ways.
14. Location, size and layout of all existing and proposed off-street parking, including loading zones. The plan shall indicate the calculations used to determine the number of parking spaces required and provided.
15. Size and location of all existing and proposed public and private utilities, including but not limited to: water lines, sewage disposal facilities, gas lines, power lines, telephone lines, cable lines, fire alarm connection, and other utilities.
16. Location, type and size of all existing and proposed landscaping, screening and open space areas.
17. Location and type of all existing and proposed on-site lighting including the cone(s) of illumination to a measurement of 0.5 foot-candle.
18. Location, size and exterior design of all existing and proposed signs to be located on-site.
19. Type and location of all existing and proposed solid waste disposal facilities and accompanying screening.
20. Location of all existing and proposed on-site snow storage areas.
21. Project impacts and proposed mitigation.
22. A signature block consisting of five (5) signature lines for Planning Board approval.

B. Additional Submission Materials:

1. The applicant shall submit such material as may be required to ensure the proposed development will not pollute surface or ground water, cause soil erosion, increase runoff, change ground water levels, nor increase flooding during or after construction.
2. The applicant shall submit such materials as may be required regarding design features intended to integrate the proposed new development into the existing landscape, to enhance aesthetic assets, and to screen objectionable features from neighbors. The applicant shall also provide a general description of the surrounding neighborhood including heights of surrounding buildings. Photographs and other visual materials are highly encouraged.
3. The applicant shall submit such materials as may be required regarding the projected traffic flow patterns into and upon the site for both vehicles and pedestrians and an estimate of the projected number of motor vehicle trips to and from the site for an average day and for peak hours. The projected traffic flow pattern including vehicular movements at all major intersections likely to be affected by the proposed use of the site; and the impact of this traffic upon existing abutting public and private ways in relation to existing road capacities.

4. The applicant shall submit such materials as may be required regarding existing and expected post-development environmental conditions, including air quality, noise levels, harmful or noxious emissions, and the visual environment. Smoke, odors, vibration and electromagnetic radiation shall also be identified and addressed.
5. The applicant shall submit such materials as may be required regarding the existing and projected demand for municipal services, revenues to the Town and fiscal or economic impacts.

Should the Planning Board determine that some or all of the Additional Submission Materials are to be required, the applicant will be notified in writing within ten (10) days of the meeting at which the determination was made.

5.04.05 Site Plan Design Standards

All site plan review applicants shall adhere to the following general principles when designing a site plan for land within the Town of Dudley.

- A. **Preservation of Landscape:** The landscape shall be preserved in its natural state, insofar as practicable by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of the neighboring developed areas. Where tree coverage does not exist or has been removed, new planting may be required. Finished site contours shall depart only minimally from the character of the natural site and the surrounding properties.
- B. **Relation of Building to Environment:** Proposed development shall be related harmoniously to the terrain and to use, scale and siting of existing buildings in the vicinity that have functional or visual relationship to the proposed buildings. All buildings and other structures shall be sited to minimize disruption of the topography. Strict attention shall be given to proper functional, visual and spatial relationship of all structures, landscaped elements and paved areas.
- C. **Open Space:** All open space (landscaped and usable) shall be so designed as to add to the visual amenities of the vicinity by maximizing its visibility to persons passing the site or overlooking it from nearby properties.
- D. **Surface Water Drainage:** Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties of the public storm drainage system, nor obstruct the flow of vehicular or pedestrian traffic and will not create puddles in paved areas. All surface water drained from roofs, streets, parking lots and other site features shall be disposed of in a safe and efficient manner, which shall not create problems of water runoff or erosion on the site in question, or on other sites.

Insofar as possible, natural drainage courses, swales properly stabilized with plant material or paving when necessary, and drainage impounding areas, shall be utilized to dispose of water on the site through natural percolation, to a degree equivalent to that prior to development. Also, appropriate control measures shall be employed which include maximum slope requirements, and slope stabilization measures including seeding of exposed areas to replace vegetative cover.

- E. **Ground Water Recharge and Quality Preservation:** Ground Water Recharge shall be maximized and ground water quality shall be protected. Various techniques may be required to maximize recharge, such as perforated drainpipes, pervious pavement, reduction of paved areas, reduction of building area, or reduction of building coverage, etc.; or to improve quality, such as installing grease traps or gas/oil separators.

Where ground water elevation is close to the surface, extra site grading precautions may be required to maintain the protective function of the over burden.

- F. Utilities: The placement of electric, telephone, or other utility lines and equipment, such as water or sewer shall be underground; and so located as to provide no adverse impact on the ground water levels, and to be coordinated with other utilities. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be indicated precisely on the plans.
- G. Advertising: All signs and outdoor advertising features shall be reviewed as an integral element in the design and planning of all development on the site. As a minimum, all signs and advertising devices shall be in conformance with Section 4.03.00 SIGN STANDARDS.
- H. Landscaping Within the Setbacks: Site plan applicants are required to landscape the setbacks as part of the site plan approval process. Site plan applicants are expected to maintain the landscaping approved for the site and replace any landscaping that has not fully established itself within two (2) growing seasons, after which all failed landscaping shall be replaced. Front yard setback landscaping shall consist of street trees and low-level plantings. Landscaping within twenty (20) feet of a driveway shall consist solely of low-level plantings such that vehicular and pedestrian sight lines are not restricted.
- I. Circulation: With respect to vehicular and pedestrian circulation, including entrances, ramps, walkways, drives and parking, special attention shall be given to location and number of access points to the public streets (especially in relation to existing traffic controls), width of interior drives, and access points, general interior circulation, separation of pedestrian and vehicular traffic, access to community facilities and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not detract from the use and enjoyment of proposed buildings and structures and the neighboring properties. Insofar as practicable, parking should be located on the side or the rear of buildings.

To minimize turning movements onto adjacent public ways, developers are encouraged to provide internal circulation systems (service roads) that connect to adjacent development (parking area to parking area). Site plans that propose service roads and/or connection of parking areas shall show on the plan how the connection of parking areas will be achieved.

All parking and loading areas shall be striped and marked on the ground as a condition of site plan approval. All off-street parking and loading spaces shall be provided with safe and convenient access and shall not be located within a public right-of-way or within required setbacks. Access locations shall be designed to encourage unimpeded traffic flow with controlled turning movements and minimum hazards to vehicular and pedestrian traffic. Parking and loading shall be in conformance with Section 4.01.00 PARKING STANDARDS and Section 4.02.00 LOADING STANDARDS.

- J. Shared Parking: The Planning Board may allow a reduction of the required number of spaces by up to twenty-five percent (25%) if it can be demonstrated that two (2) or more uses within a single development can share parking areas due to different hours of normal activity. When two (2) or more adjacent property owners agree in writing to share parking, the required number of parking spaces may be reduced by as much as twenty-five percent (25%) for each business.
- K. Parking Area Landscaping: Site plans involving more than thirty (30) parking spaces shall provide interior landscaping covering not less than five percent (5%) of the total area of the parking area. In total, there shall be provided one (1) shade tree placed within the parking lot for every ten (10) spaces

and complemented by shrubs and other planting material. Such trees shall be at least two (2) inches in trunk diameter at the time of planting, and shall be located in planting beds at least six feet (6') in width or diameter. Snow removal activities should be considered when planning for parking area landscaping. In case it can be shown to the Planning Board that the planting of trees is impractical, the Planning Board may authorize plantings and shrubbery instead of trees.

- L. Interior Walkways and Pedestrian Paths: Site plans involving more than thirty (30) parking spaces shall provide walkways and pedestrian paths that safely connect the parking areas to the principal uses they will serve. Such walkways shall be constructed with brick, decorative pavers, or other materials, and may be bordered with fencing or shrubbery to clearly separate pedestrians from automobile traffic. Facilities and access routes for deliveries, service and maintenance shall be separated, where practical, from public access routes and parking areas. Car stops shall be provided to prevent parked cars from damaging trees, shrubs and curbing, and shall not disrupt pedestrian walkways.
- M. Stormwater Management (Grading and Drainage): All site plan applicants must submit drainage calculations to show compliance with DEP (Department of Environmental Protection) Stormwater Guidelines.
- N. Outdoor Lighting: All exterior lights shall be designed and installed in such a manner as to prevent objectionable light at (and glare across) the property lines. Externally lit signs, display, building and aesthetic lighting must be lit from the top and shine downward. Each outdoor luminaire shall be a full cutoff luminaire, and the use of decorative luminaires with full cutoff optics is desired. A full cutoff luminaire is an outdoor light fixture shielded in such a manner that all light emitted by the fixture, either directly from the lamp or indirectly from the fixture is projected below the horizontal plane. Developments shall eliminate glare onto adjacent properties through the use of lighting shields, earthen berms, or retention of existing natural vegetation. All outdoor lighting fixtures, including display lighting, shall be turned off within one hour after close-of-business, unless needed for safety or security, in which case the lighting shall be reduced to the minimum level necessary.
- O. Other Site Features: Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and similar accessory areas and structures shall be designed with such setbacks, screen plantings, or other screening methods to prevent their being a hazard or being incongruous with the existing or contemplated environment and the surrounding properties. With respect to personal safety, all open and enclosed spaces shall be designed to facilitate building evacuation and to maximize accessibility by fire, police and other emergency personnel and equipment.

5.04.06 Decision of the Planning Board

In reviewing a site plan application, the Planning Board shall take the following into consideration:

- A. Compliance with all applicable provisions of the Zoning Bylaw of the Town of Dudley Massachusetts and Town of Dudley Rules and Regulations Governing the Subdivision of Land.
- B. Traffic safety and ease of access at street and highway entrances and exits, taking into account grades, sight distances, distance between such exits and entrances, and the proximity of existing street and driveway entrances.
- C. Safety and adequacy of driveway layout and pedestrian walkways; off-street parking areas; off-street loading areas for materials and products; adequate access for service and emergency vehicles such as

electricity, gas, fuel, telephone, laundry, rubbish removal, water, sewage, fire, police, ambulance and other routine emergency vehicles.

- D. Safe and adequate means of disposal of sewage, garbage and rubbish.
- E. Safe and adequate water supply and distribution, including sufficient water and facilities for fire fighting on the site.
- F. Safe and adequate storm drainage consistent with building and surface coverage, grades, slopes, soils and water table which shall result in zero increase in the rate of runoff from the site, as measured by the two (2) year (twenty-four (24) hour) and ten (10) year (twenty-four (24)-hour) Storm Event Standards; and there will be no negative impacts to downstream property-owners in a one hundred (100) year (twenty-four (24)-hour) storm event.
- G. Prevention of soil erosion during and after construction; provisions for an increase in the volume of runoff of surface water from the site and the protection of adjacent areas against detrimental or offensive uses on the site by the provision of adequate buffers against light, sight, sound, dust and vibrations.
- H. Open space provisions and landscaping, including the maximum retention of on-site natural features.
- I. Placement of underground utilities, night lighting and signs.
- J. Compatibility of soil and subsoils to type and intensity of development.

5.04.07 Modification of an Approved Site Plan

Once the Planning Board has approved a site plan, said plan shall not be changed, amended or modified without approval of the Planning Board. There shall be only one final site plan in effect for a parcel of land at a time.

5.04.08 Construction of an Approved Site Plan

- A. An approved site plan shall be valid for a period of two (2) years from the date of approval. Site plan approval may be extended at the discretion of the Planning Board after receipt of a written request from the applicant, showing good cause. All work proposed in the site plan or required by conditions to which the approval was subject, shall be completed within two (2) years from the date of approval of the site plan unless a longer period is expressly given in writing at the time of site plan approval. This time period shall not include delays resulting from litigation. In the case of plans which call for development over a period of years, a schedule showing the proposed times within which each section of the development may be started shall be submitted.
- B. No permit to build, alter or expand any building or structure, or change of use requiring Site Plan Review under this bylaw shall be issued by the Building Inspector before a written statement of Final Approval has been issued by the Planning Board.
- C. The Building Inspector reserves the right to inspect a site under construction for compliance with the approved site plan.

5.04.09 Enforcement of an Approved Site Plan

- A. It shall be the duty of the Building Inspector to enforce the conditions of the site plan approval.
- B. The Planning Board may suspend site plan approval when work is not performed as required by the approved site plan.
- C. "As Built" plans, certified by a registered professional and noting any change from the approved plan, shall be filed with the Building Inspector and the Planning Board before a Certificate of Completion shall be issued.

- D. The Building Inspector shall issue a Certificate of Completion when all construction has been performed and all other requirements have been met in compliance with the approved site plan. A copy of the Certificate of Completion will be filed with the Planning Board.
- E. No Certificate of Occupancy shall be issued for any structure or use subject to site plan review unless a Certificate of Completion has been issued. The Building Inspector may issue a Temporary Certificate of Occupancy, under extenuating circumstances, for a period of six (6) months if the required construction has been substantially completed and the permitted uses of the development can be carried on in a safe and convenient manner.
- F. The appeal of any decision of the Planning Board hereunder shall be made in accordance with the provisions of M.G.L. c. 40A, § 17 except when a disapproval by the Planning Board is based upon non-compliance with the Dudley Zoning By-Law, in which case an appeal can be taken to the Zoning Board of Appeals.
- G. In the case where there is a suspension of site plan approval or a cease and desist order issued by the Planning Board, work must cease immediately until the Board issues a new start work order. In the event that work continues despite issuance of a cease and desist order, the Planning Board will issue a fine of one hundred dollars (\$100) per day, per violation.

5.04.10 Planning Board Rules and Regulations

- A. The Planning Board may adopt such rules and regulations for carrying out its duties under this section. The Planning Board may, where such action is allowed by law, is in the public interest and is not inconsistent with the purpose and intent of this bylaw, waive strict compliance with any requirement of this site plan review bylaw or its rules and regulations.
- B. The Planning Board may periodically add or amend rules and regulations relating to the procedures and administration of this site plan review bylaw, by majority vote of the Planning Board, after conducting a public hearing to receive comments on any proposed revisions.

THE PLANNING BOARD OF DUDLEY

TOWN HALL

40 SCHOFIELD AVENUE

DUDLEY, MASSACHUSETTS 01571

SITE PLAN REVIEW APPLICATION – FORM –

To the Planning Board of Dudley:

The undersigned wishes to submit a Site Plan as defined in the Zoning By-Laws of the Town of Dudley Section XII and requests a review and determination by the Board of said site plan.

A) If said Site Plan involves construction of a new building(s) or parking the owner(s) title to the land is derived under deed from _____, dated _____, and recorded in the Worcester County Registry of Deeds, Book _____, Page _____, or Land Court Certificate of Title No. _____, Registered in _____ District, Book _____, Page _____.

B) If said Site Plan involves enlargement or expansion of any building(s) or parking, or involves any other use designated “SPR” in Zoning Section ---- “Schedule of Use Regulations”, then the property (building) is described as being located at _____; it is currently used as _____, and the changes proposed to be made are _____.

The project is located on the parcel shown on the Dudley Assessors Map _____, Block _____, Lot _____.

Applicant’s Signature

Owners’ Signature(s)

Applicant’s Name (print)

Owners’ Name(s)

Applicant's Address

Owners' Address

Date Received by Town Clerk: _____

Signature _____

Please note: 1) An applicant for a Site Plan Review must file with the Planning Board (12) copies of the site plan drawn at a scale of 1"=20", a completed site plan review application, two (2) copies of drainage and traffic calculations, and the application and review fees as noted in the Site Plan Review Fee Schedule. 2) The applicant shall also file a copy of the site plan and the application with the Town Clerk. The date of receipt by the Town Clerk shall be the official filing date.

Planning Board

Site Plan Review Fee Schedule

(Effective -----, 2003)

The following fee schedule shall set minimum fees. The Planning Board may require fee amounts in excess of this schedule if, in its opinion, such fee amounts are necessary for proper review of an application or to ensure compliance with the Planning Board decisions.

SITE PLAN REVIEW (See Section XII of Zoning Bylaws of Dudley, Massachusetts)

	Professional Review Fee	Application Fee
Minor Site Plan Review	\$500.00	\$100.00
Major Site Plan Review	\$1,000.00	\$275.00

Site Plan Review Notes:

The applicant will incur an additional fee for the public hearing notice expenses.

Where more extensive reviews, such as drainage, environmental, or traffic studies, or repeated submittals to the Board's reviewers are necessary, or if modifications or changes are made to an approved site plan, as outlined in Section XII of the current Zoning Bylaws, additional fees will be collected to pay for the cost of the consultants' efforts. Professional review fees include, but are not limited to, engineering and legal review fees. The Planning Board's consulting engineer may provide a fee estimate.

Any amount left unused from the Review Fees at the completion of the Site Plan Review will be returned to the applicant.

Appendix 1: Assets and Liabilities Inventory

1. From the *Dudley Open Space and Recreation Plan, 2003*

Assets:

- French River and its riparian corridor
- Quinebaug River and riparian corridor
- Tufts Brook and its riparian corridor
- Many ponds in Town used for recreation activities
- Diverse wildlife habitats & rare species (NHESP priority habitats, vernal pools, etc.)

- Agricultural heritage, including second largest amount of APR land in state
- Rural, small-town character
- Route 31 Scenic Landscape (cited by 1982 DEM study)
- Conservation & Recreation lands, including Ardlock Acres, Low Pond recreation area, etc.
- Former Grand Trunk rail line (potential for regional trail)
- Conservation Districts provided by Dudley zoning bylaw
- Proposed nominations to National Register of Historic Places - *Perryville District, Stevens Mill District and Dudley Hill District*

- Convenient access provided by State Routes 12, 31, 131, 197
- Industrial heritage, including potential reuses of Steven Linen & Ethan Allen mill sites
- Nichols College facilities, including golf course
- Gentex Corporation
- Quality public school system

Liabilities

- Dudley water supply - *lack of sewer services and existing land uses over vulnerable aquifer; as well as limited supply that has led to water moratorium*
- Malfunctioning septic systems in several parts of town
- Aquatic weed problems with most ponds in town, and increasing waterfront development
- Potash Brook pollution sources, including potential landfill leachate
- Stormwater discharges from roads and parking lots into waterways and ponds
- Oil/hazardous materials releases (28 sites listed by DEP)
- Inconvenient, indirect access to interstate highways thru surrounding towns
- Unprotected stream corridors
- Limited opportunities for hiking, biking and X-skiing in Town
- Maintenance of Town properties and facilities
- Lack of visibility and signage for Town recreation areas
- Extensive unprotected open space and lack of large contiguous conservation areas for outdoor activities, wildlife habitats, etc.

2. From the Citiz

- With plentiful land remaining for development, there are many opportunities to promote the use of “open space development” and “transfer of development rights” (TDR) to preserve natural resources and meet local housing needs.
- A recently adopted open space residential development bylaw and site plan review bylaw.

Liabilities

- A sprawl pattern of development, where most new single family homes are built along existing roads, altering the Town’s rural landscape.
- Few options for alternative elderly housing lifestyles (despite the fact that the elderly population is growing faster than the general population).
- Rapidly increasing housing costs, making it very difficult for young adults and public employees to afford to purchase a home in Dudley.
- The fair to poor condition of much of Dudley’s multi-family housing stock.
- The need for rehabilitation assistance for Dudley’s older housing stock, especially for low and moderate-income residents.
- A shortage of affordable rental units in Dudley.
- A large number of Dudley residents pay more than 30% of their income for rent.
- The large waiting list of persons seeking subsidized units with the Dudley Housing Authority.
- Low number of units (only 2.27%) of the Town’s year-round housing stock can be counted as meeting the definition of MGL c. 40B.

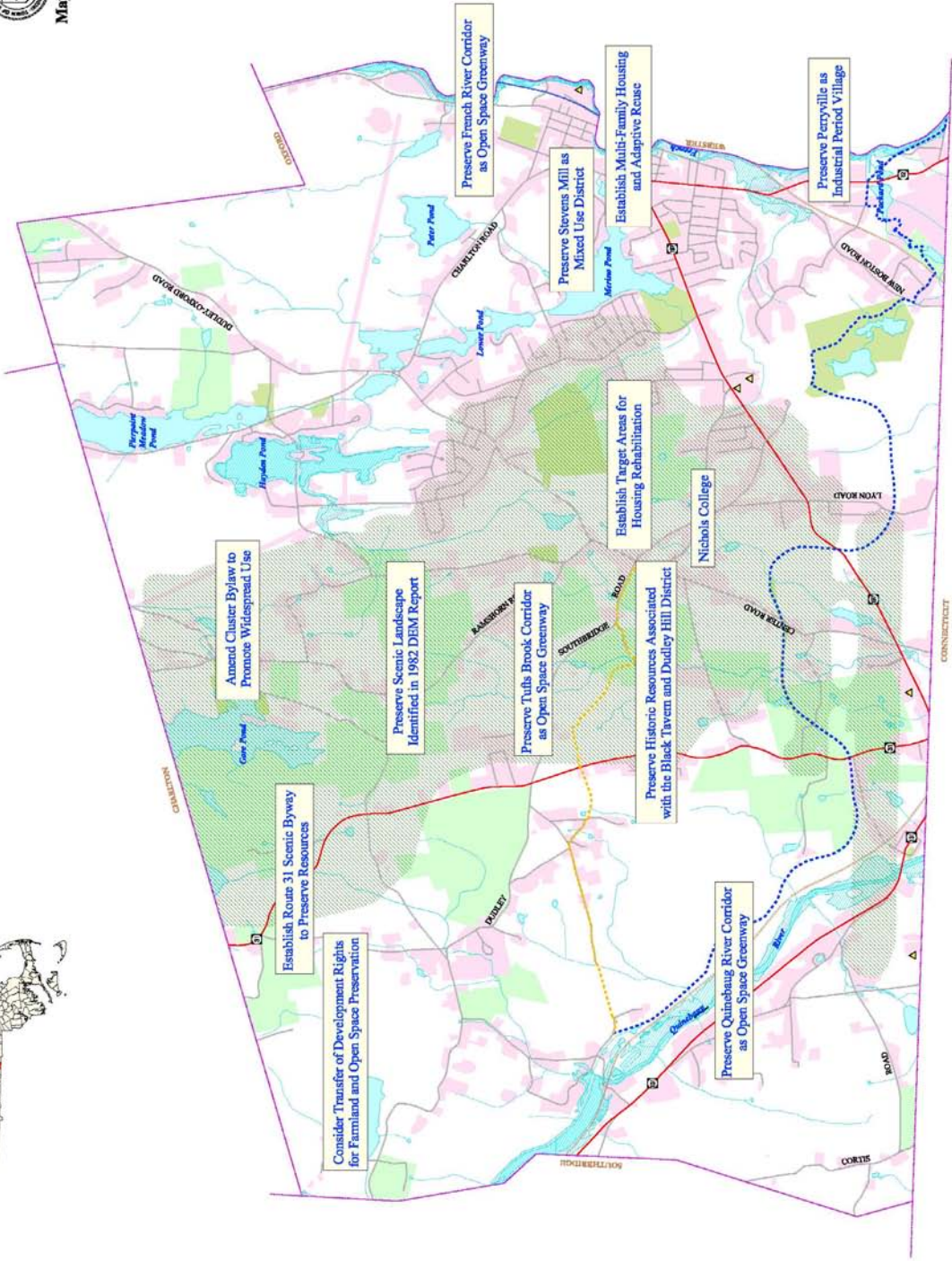
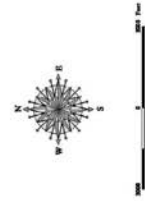
TOWN OF DUDLEY Community Development Plan Map



May 2004



- Legend**
- Scenic Landscapes
 - Developed Land as of 1999
 - Towns
 - DEP - Regulated Major Facility
 - Open Space
 - Municipal Ownership
 - Permanently Protected
 - Hydrography
 - Floodplain
 - Wet Bodies
 - Stream
 - Intermittent Stream
 - Roads & Trails
 - Local
 - Route
 - Active Rail
 - P & W - Out of Service
 - Old Stage Coach Trail
 - Grand Trunk Trail



Source data:
Aerial photography and maps were developed by O&GPC and the Town of Dudley.
Scenic Landscapes and Intermittent Stream data were developed by O&GPC and the Town of Dudley.
Scenic Landscapes from Mass DCR and TDRS.
All other data are from MassGIS, obtained by O&GPC.
Map legend was based on May 1 of Blackwell Series, 1999.

The information depicted on this map is for planning purposes only.
This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis.
Produced by the Central Massachusetts Regional Planning Commission CES Office,
35 Leonard Street, Second Floor, Worcester, MA 01609-3601

